

UC-NRLF



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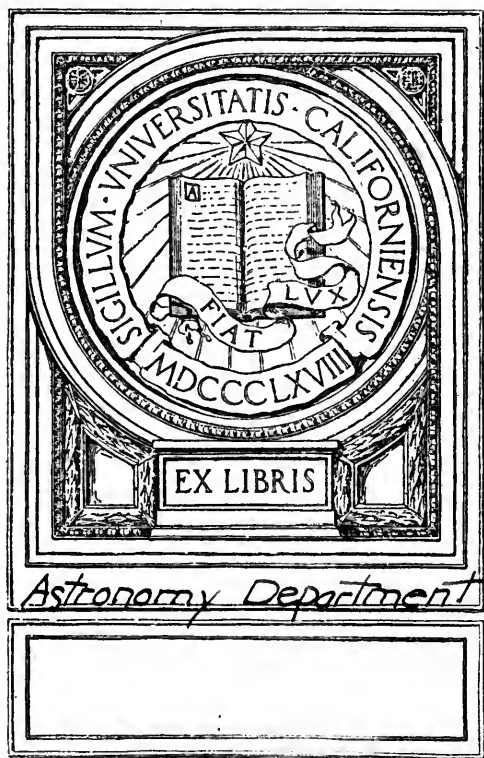
No. 120

AZIMUTHS OF CELESTIAL BODIES

DEC. 24° to 70°

LAT. 0° to 70°





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No. 120

Azimuths of Celestial Bodies

Whose declinations range from 24 to 70 degrees
for latitudes extending to 70 degrees
from the equator

FOURTH EDITION

^{U.S.}
Published by the Hydrographic Office under the
authority of the Secretary of the Navy



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PREFACE.

This work was undertaken on account of the value of star observations in determining azimuths, and the growing necessity of frequent observations for azimuth and for position in high-speed ships.

It was prepared in the Hydrographic Office in 1902 and reprinted in 1907 as a second edition. The present issue is a reprint of the second edition.

Taken together with the solar azimuth tables of the Hydrographic Office, which give the true bearings of the sun and other celestial bodies within ecliptic limits, the present tables supply the navigator with ready means for finding the azimuths of the great majority of bodies appearing in the firmament and for applying, over a vastly increased extent, the other useful objects of azimuth tables, such as finding the true course in great-circle sailing and laying down the Sumner line of position.

UNITED STATES HYDROGRAPHIC OFFICE,

March 15, 1912.

(3)

NOTE TO FOURTH EDITION.

HYDROGRAPHIC OFFICE,

BUREAU OF NAVIGATION, NAVY DEPARTMENT,

Washington, D. C., May 6, 1916.

This edition is reprinted from the original plates without change in the tables, no errors therein having been reported since the issue of the first edition in 1902.

AZIMUTH OR TRUE BEARING.

LATITUDE 0°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 0°.		
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.			
h.	m.	0	1	2	3	4	5	6	7	8	9	10	11	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	5 30	5 20	5 07	4 54	4 41	4 30	4 19	4 09	3 59	3 51	3 42	3 34	1	10		
	20	11 04	10 36	10 07	9 42	9 19	8 56	8 35	8 15	7 56	7 39	7 22	7 06		20		
	30	16 20	15 38	14 59	14 22	13 48	13 15	12 45	12 16	11 47	11 22	10 57	10 34		30		
	40	21 18	20 25	19 36	18 49	18 05	17 23	16 44	16 08	15 32	14 58	14 26	13 56		40		
	50	25 56	24 55	23 56	23 01	22 09	21 20	20 33	19 49	19 06	18 26	17 48	17 10		50		
1	00	30 10	29 02	27 57	26 55	25 57	25 02	24 09	23 19	22 30	21 44	21 00	20 17	1	00		
	10	34 02	32 49	31 39	30 33	29 29	28 28	27 30	26 35	25 41	24 50	24 02	23 14		10		
	20	37 31	36 16	35 02	33 53	32 45	31 40	30 39	29 39	28 41	27 47	26 53	26 02		20		
	30	40 41	39 23	38 07	36 55	35 45	34 37	33 32	32 30	31 29	30 31	29 34	28 40		30		
	40	43 30	42 11	40 54	39 40	38 29	37 19	36 12	35 07	34 05	33 04	32 04	31 07		40		
	50	46 02	44 44	43 26	42 10	40 58	39 48	38 39	37 32	36 27	35 24	34 23	33 24		50		
2	00	48 19	47 00	45 43	44 27	43 15	42 03	40 54	39 46	38 40	37 36	36 33	35 32	2	00		
	10	50 21	49 03	47 46	46 31	45 18	44 06	42 56	41 48	40 41	39 36	38 32	37 30		10		
	20	52 11	50 53	49 37	48 23	47 10	45 58	44 48	43 40	42 33	41 27	40 23	39 19		20		
	30	53 49	52 33	51 18	50 04	48 52	47 41	46 31	45 22	44 15	43 10	42 05	41 01		30		
	40	55 18	54 03	52 49	51 35	50 24	49 13	48 04	46 56	45 48	44 43	43 37	42 33		40		
	50	56 37	55 23	54 10	52 58	51 48	50 37	49 29	48 21	47 14	46 08	45 03	43 59		50		
3	00	57 48	56 36	55 24	54 13	53 03	51 54	50 46	49 39	48 32	47 26	46 21	45 17	3	00		
	10	58 52	57 42	56 31	55 21	54 12	53 03	51 56	50 49	49 43	48 37	47 33	46 29		10		
	20	59 50	58 41	57 31	56 22	55 14	54 06	53 00	51 54	50 48	49 42	48 38	47 34		20		
	30	60 42	59 34	58 25	57 17	56 10	55 04	53 57	52 52	51 46	50 42	49 38	48 35		30		
	40	61 28	60 21	59 14	58 07	57 00	55 55	54 50	53 45	52 40	51 36	50 32	49 29		40		
	50	62 10	61 04	59 58	58 52	57 47	56 41	55 36	54 32	53 28	52 24	51 21	50 18		50		
4	00	62 47	61 42	60 37	59 32	58 27	57 22	56 18	55 14	54 11	53 08	52 06	51 03	4	00		
	10	63 21	62 16	61 11	60 05	59 04	58 00	56 56	55 53	54 51	53 48	52 45	51 43		10		
	20	63 50	62 47	61 43	60 39	59 36	58 33	57 30	56 28	55 25	54 23	53 21	52 19		20		
	30	64 16	63 13	62 10	61 07	60 04	59 02	58 00	56 58	55 55	54 54	53 52	52 50		30		
	40	64 39	63 37	62 34	61 31	60 30	59 28	58 25	57 25	56 23	55 21	54 20	53 18		40		
	50	64 58	63 57	62 55	61 53	60 51	59 50	58 48	57 47	56 46	55 45	54 44	53 43		50		
5	00	65 15	64 14	63 12	62 12	61 10	60 08	59 08	58 07	57 06	56 06	55 05	54 04	5	00		
	10	65 29	64 29	63 27	62 27	61 25	60 24	59 24	58 23	57 22	56 23	55 22	54 21		10		
	20	65 40	64 40	63 39	62 39	61 38	60 37	59 37	58 37	57 36	56 36	55 36	54 35		20		
	30	65 49	64 49	63 48	62 48	61 48	60 47	59 47	58 47	57 47	56 46	55 46	54 47		30		
	40	65 55	64 55	63 54	62 54	61 55	60 54	59 54	58 54	57 55	56 54	55 54	54 55		40		
	50	65 59	64 59	63 58	62 58	61 59	60 59	59 59	58 59	57 58	56 58	55 58	54 58		50		
6	00	66 00	65 00	64 00	63 00	62 00	61 00	60 00	59 00	58 00	57 00	56 00	55 00	6	00		
	10	65 59	64 59	63 58	62 58	61 59	60 59	59 59	58 59	57 58	56 58	55 58	54 58		10		
	20	65 55	64 55	63 54	62 54	61 55	60 54	59 54	58 54	57 55	56 54	55 54	54 54		20		
	30	65 49	64 49	63 48	62 48	61 48	60 47	59 47	58 47	57 47	56 46	55 46	54 47		30		
	40	65 40	64 40	63 39	62 39	61 38	60 37	59 37	58 37	57 36	56 36	55 36	54 35		40		
	50	65 29	64 29	63 27	62 27	61 25	60 24	59 24	58 23	57 22	56 23	55 22	54 21		50		
7	00	65 15	64 14	63 12	62 12	61 10	60 08	59 08	58 07	57 06	56 06	55 05	54 04	7	00		
	10	64 58	63 57	62 55	61 53	60 51	59 50	58 48	57 47	56 46	55 45	54 44	53 43		10		
	20	64 39	63 37	62 34	61 31	60 30	59 28	58 25	57 25	56 23	55 21	54 20	53 18		20		
	30	64 16	63 13	62 10	61 07	60 04	59 02	58 00	56 58	55 55	54 54	53 52	52 50		30		
	40	63 50	62 47	61 43	60 39	59 36	58 33	57 30	56 28	55 25	54 23	53 21	52 19		40		
	50	63 21	62 16	61 11	60 08	59 04	58 00	56 56	55 53	54 51	53 48	52 45	51 43		50		
8	00	62 47	61 42	60 37	59 32	58 27	57 22	56 18	55 14	54 11	53 08	52 06	51 03	8	00		
	10	62 10	61 04	59 58	58 52	57 47	56 41	55 36	54 32	53 28	52 24	51 21	50 18		10		
	20	61 28	60 21	59 14	58 07	57 00	55 55	54 50	53 45	52 40	51 36	50 32	49 29		20		
	30	60 42	59 34	58 25	57 17	56 10	55 04	53 57	52 52	51 46	50 42	49 38	48 35		30		
	40	59 50	58 41	57 31	56 22	55 14	54 06	53 00	51 54	50 48	49 42	48 38	47 34		40		
	50	58 52	57 42	56 31	55 21	54 12	53 03	51 56	50 49	49 43	48 37	47 33	46 29		50		
9	00	57 48	56 36	55 24	54 13	53 03	51 51	50 46	49 39	48 32	47 26	46 21	45 17	9	00		
	10	56 37	55 23	54 10	52 58	51 48	50 37	49 29	48 21	47 14	46 08	45 03	43 59		10		
	20	55 18	54 03	52 49	51 35	50 24	49 13	48 04	46 56	45 48	44 43	43 37	42 33		20		
	30	53 49	52 33	51 18	50 04	48 52	47 41	46 31	45 22	44 15	43 10	42 05	41 01		30		
	40	52 11	50 53	49 37	48 23	47 10	45 58	44 48	43 40	42 33	41 27	40 23	39 19		40		
	50	50 21	49 03	47 46	46 31	45 18	44 06	42 56	41 48	40 41	39 36	38 32	37 30		50		
10	00	48 19	47 00	45 43	44 27	43 15	42 03	40 54	39 46	38 40	37 36	36 33	35 32	10	00		
	10	46 02	44 44	43 26	42 10	40 58	39 48	38 39	37 32	36 27	35 24	34 23	33 24		10		
	20	43 30	42 11	40 54	39 40	38 29	37 19	36 12	35 07	34 05	33 04	32 04	31 07		20		
	30	40 41	39 23	38 07	36 55	35 45	34 37	33 32	32 30	31 29	30 31	29 34	28 40		30		
	40	37 31	36 16	35 02	33 53	32 45	31 40	30 39	29 39	28 41	27 47	26 53	26 02		40		
	50	34 02	32 49	31 39	30 33	29 29	28 28	27 30	26 35	25 41	24 50	24 02	23 14		50		
11	00	30 10	29 02	27 57	26 55	25 57	25 02	24 09	23 19	22 30	21 44	21 00	20 17	11	00		
	10	25 56	24 55	23 56	23 01	22 09	21 20	20 33	19 49	19 06	18 26	17 48	17 10		10		
	20	21 18	20 25	19 36	18 49	18 05	17 23	16 44	16 08	15 32	14 58	14 26	13 56		20		
	30	16 20	15 38	14 59	14 22	13 48	13 15	12 45	12 16	11 47	11 22	10 57	10 34		30		
	40	11 04	10 36	10 07	9 42	9 19	8 56	8 35	8 15	7 56	7 39	7 22	7 06		40		
	50	5 36	5 20	5 07	4 54	4 41	4 30	4 19	4 09	3 59	3 51	3 42	3 34		50		
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00		

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 0°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 0°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	3 27	3 19	3 12	3 05	2 59	2 52	2 46	2 40	2 36	2 30	2 25	2 19		10
	20	6 50	6 36	6 22	6 09	5 55	5 44	5 31	5 20	5 09	4 59	4 48	4 39		20
	30	10 11	9 50	9 29	9 09	8 50	8 33	8 15	7 58	7 42	7 27	7 11	6 56		30
	40	13 26	12 58	12 32	12 07	11 42	11 18	10 56	10 33	10 12	9 51	9 31	9 12		40
	50	16 36	16 02	15 29	14 58	14 28	13 59	13 32	13 04	12 38	12 13	11 48	11 24		50
1	00	19 36	18 58	18 20	17 43	17 08	16 35	16 02	15 31	15 00	14 31	14 02	13 34	1	00
	10	22 29	21 45	21 03	20 22	19 43	19 05	18 28	17 53	17 17	16 44	16 11	15 40		10
	20	25 12	24 24	23 39	22 54	22 11	21 29	20 48	20 09	19 31	18 53	18 16	17 41		20
	30	27 47	26 56	26 06	25 17	24 31	23 46	23 02	22 19	21 37	20 56	20 16	19 38		30
	40	30 11	29 18	28 25	27 34	26 44	25 56	25 09	24 23	23 38	22 55	22 12	21 31		40
	50	32 26	31 30	30 35	29 41	28 50	27 58	27 09	26 21	25 33	24 47	24 01	23 18		50
2	00	34 32	33 35	32 38	31 42	30 48	29 55	29 03	28 12	27 22	26 34	25 47	25 00	2	00
	10	36 29	35 30	34 31	33 33	32 38	31 43	30 50	29 57	29 05	28 15	27 25	26 37		10
	20	38 17	37 17	36 17	35 19	34 21	33 26	32 30	31 35	30 42	29 51	28 59	28 09		20
	30	39 57	38 56	37 56	36 56	35 57	35 00	34 05	33 08	32 13	31 20	30 27	29 35		30
	40	41 30	40 28	39 27	38 26	37 27	36 29	35 32	34 34	33 39	32 45	31 50	30 56		40
	50	42 55	41 52	40 51	39 51	38 51	37 52	36 54	35 55	34 58	34 02	33 07	32 12		50
3	00	44 13	43 11	42 09	41 07	40 07	39 08	38 09	37 10	36 13	35 16	34 20	33 26	3	00
	10	45 25	44 22	43 21	42 19	41 18	40 18	39 19	38 20	37 22	36 24	35 27	34 31		10
	20	46 31	45 29	44 27	43 24	42 24	41 24	40 24	39 25	38 26	37 27	36 29	35 32		20
	30	47 31	46 29	45 27	44 25	43 23	42 23	41 24	40 23	39 24	38 25	37 28	36 30		30
	40	48 26	47 23	46 21	45 19	44 18	43 18	42 18	41 18	40 18	39 20	38 20	37 23		40
	50	49 15	48 13	47 12	46 10	45 08	44 09	43 09	42 07	41 08	40 09	39 09	38 11		50
4	00	50 41	49 38	48 35	47 32	46 30	45 34	44 33	43 34	42 34	41 33	40 35	39 36	4	00
	10	51 17	50 16	49 15	48 13	47 13	46 12	45 12	44 11	43 11	42 11	41 11	40 12		10
	20	51 49	50 48	49 48	48 46	47 45	46 45	45 45	44 45	43 44	42 44	41 44	40 45		20
	30	52 17	51 17	50 16	49 14	48 14	47 14	46 14	45 13	44 13	43 14	42 13	41 14		30
	40	52 42	51 41	50 41	49 40	48 39	47 39	46 39	45 38	44 39	43 38	42 39	41 39		40
	50														50
5	00	53 03	52 03	51 02	50 02	49 01	48 01	47 01	46 01	45 01	44 00	43 00	42 01	5	00
	10	53 21	52 20	51 20	50 19	49 19	48 19	47 20	46 18	45 18	44 19	43 18	42 19		10
	20	53 35	52 35	51 35	50 34	49 34	48 34	47 34	46 34	45 33	44 34	43 34	42 33		20
	30	53 46	52 46	51 46	50 46	49 46	48 46	47 46	46 46	45 45	44 44	43 45	42 46		30
	40	53 54	52 54	51 54	50 53	49 53	48 53	47 54	46 53	45 54	44 54	43 54	42 55		40
	50	53 58	52 59	51 59	50 58	49 58	48 59	47 59	46 58	45 58	44 58	43 58	42 58		50
6	00	54 00	53 00	52 00	51 00	50 00	49 00	48 00	47 00	46 00	45 00	44 00	43 00	6	00
	10	53 58	52 59	51 59	50 58	49 58	48 59	47 59	46 58	45 58	44 58	43 58	42 58		10
	20	53 54	52 54	51 54	50 53	49 53	48 53	47 54	46 53	45 54	44 54	43 54	42 55		20
	30	53 46	52 46	51 46	50 46	49 46	48 46	47 46	46 46	45 45	44 44	43 45	42 46		30
	40	53 35	52 35	51 35	50 34	49 34	48 34	47 34	46 34	45 33	44 34	43 34	42 33		40
	50	53 21	52 20	51 20	50 19	49 19	48 19	47 20	46 18	45 18	44 19	43 18	42 19		50
7	00	53 03	52 03	51 02	50 02	49 01	48 01	47 01	46 01	45 01	44 00	43 00	42 01	7	00
	10	52 42	51 41	50 41	49 40	48 39	47 39	46 39	45 38	44 39	43 38	42 39	41 39		10
	20	52 17	51 17	50 16	49 14	48 14	47 14	46 14	45 13	44 13	43 14	42 13	41 14		20
	30	51 49	50 48	49 48	48 46	47 45	46 45	45 45	44 45	43 44	42 44	41 44	40 45		30
	40	51 17	50 16	49 15	48 13	47 13	46 12	45 12	44 11	43 11	42 11	41 11	40 12		40
	50	50 41	49 39	48 38	47 36	46 36	45 35	44 34	43 34	42 34	41 34	40 35	39 36		50
8	00	50 01	48 58	47 57	46 55	45 54	44 53	43 53	42 53	41 53	40 53	39 54	38 56	8	00
	10	49 15	48 13	47 12	46 10	45 08	44 09	43 09	42 07	41 08	40 09	39 09	38 11		10
	20	48 26	47 23	46 21	45 19	44 18	43 18	42 18	41 18	40 18	39 20	38 20	37 23		20
	30	47 31	46 29	45 27	44 25	43 23	42 23	41 24	40 23	39 24	38 25	37 28	36 30		30
	40	46 31	45 29	44 27	43 24	42 24	41 24	40 24	39 25	38 26	37 27	36 29	35 32		40
	50	45 25	44 22	43 21	42 19	41 18	40 18	39 19	38 20	37 22	36 24	35 27	34 31		50
9	00	44 13	43 11	42 09	41 07	40 07	39 08	38 09	37 10	36 13	35 16	34 20	33 26	9	00
	10	42 55	41 52	40 51	39 51	38 51	37 52	36 54	35 55	34 58	34 02	33 07	32 12		10
	20	41 30	40 28	39 27	38 26	37 27	36 29	35 32	34 34	33 39	32 45	31 50	30 56		20
	30	39 57	38 56	37 56	36 56	35 57	35 00	34 05	33 08	32 13	31 20	30 27	29 35		30
	40	38 17	37 17	36 17	35 19	34 21	33 26	32 30	31 35	30 42	29 51	28 59	28 09		40
	50	36 29	35 30	34 31	33 33	32 38	31 43	30 50	29 57	29 05	28 15	27 25	26 37		50
10	00	34 32	33 35	32 38	31 42	30 48	29 55	29 03	28 12	27 22	26 34	25 47	25 00	10	00
	10	32 26	31 30	30 33	29 41	28 50	27 58	27 09	26 21	25 33	24 47	24 01	23 18		10
	20	30 11	29 18	28 25	27 34	26 44	25 56	25 09	24 23	23 38	22 55	22 12	21 31		20
	30	27 47	26 56	26 06	25 17	24 31	23 46	23 02	22 19	21 37	20 56	20 16	19 38		30
	40	25 12	24 24	23 39	22 54	22 11	21 29	20 48	20 09	19 31	18 53	18 16	17 41		40
	50	22 29	21 45	21 03	20 22	19 43	19 05	18 28	17 53	17 17	16 44	16 11	15 40		50
11	00	19 36	18 58	18 20	17 43	17 08	16 35	16 02	15 31	15 00	14 31	14 02	13 34	11	00
	10	16 36	16 02	15 29	14 58	14 28	13 59	13 32	13 04	12 38	12 13	11 48	11 24		10
	20	13 26	12 58	12 32	12 07	11 42	11 18	10 56	10 33	10 12	9 51	9 31	9 12		20
	30	10 11	9 50	9 29	9 09	8 50	8 33	8 15	7 58	7 42	7 27	7 11	6 56		30
	40	6 50	6 36	6 22	6 09	5 55	5 44	5 31	5 20	5 09	4 59	4 48	4 39		40
	50	3 27	3 19	3 12	3 05	2 59	2 52	2 46	2 40	2 36	2 30	2 25	2 19		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 0°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 0°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		0	0	0	0	0	0	0	0	0	0	0	0		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	2 15	2 10	2 06	2 01	1 57	1 53	1 49	1 45	1 41	1 37	1 33	1 31		10
	20	4 29	4 20	4 11	4 03	3 54	3 45	3 38	3 30	3 22	3 15	3 07	3 00		20
	30	6 42	6 28	6 15	6 02	5 49	5 37	5 25	5 14	5 02	4 51	4 40	4 30		30
	40	8 53	8 35	8 18	8 01	7 43	7 27	7 12	6 56	6 41	6 26	6 11	5 58		40
	50	11 01	10 40	10 18	9 57	9 36	9 15	8 56	8 37	8 18	8 00	7 43	7 24		50
1	00	13 07	12 41	12 15	11 50	11 26	11 03	10 39	10 16	9 54	9 33	9 12	8 50	1	00
	10	15 09	14 39	14 10	13 41	13 13	12 46	12 20	11 53	11 28	11 03	10 38	10 14		10
	20	17 07	16 33	16 01	15 29	14 58	14 28	13 57	13 28	13 00	12 31	12 04	11 35		20
	30	19 00	18 24	17 48	17 13	16 40	16 05	15 33	15 00	14 29	13 57	13 26	12 57		30
	40	20 50	20 11	19 32	18 54	18 17	17 41	17 04	16 29	15 55	15 21	14 48	14 15		40
	50	22 34	21 52	21 11	20 30	19 50	19 12	18 33	17 54	17 18	16 41	16 06	15 30		50
2	00	24 15	23 29	22 46	22 03	21 20	20 39	19 59	19 17	18 38	17 59	17 21	16 44	2	00
	10	25 49	25 02	24 17	23 31	22 47	22 03	21 20	20 37	19 55	19 14	18 33	17 54		10
	20	27 19	26 30	25 42	24 55	24 09	23 23	22 38	21 53	21 09	20 25	19 43	19 01		20
	30	28 43	27 53	27 04	26 14	25 27	24 39	23 52	23 05	22 19	21 34	20 50	20 06		30
	40	30 04	29 12	28 21	27 30	26 40	25 51	25 03	24 14	23 27	22 39	21 52	21 07		40
	50	31 19	30 25	29 33	28 41	27 50	26 59	26 09	25 19	24 30	23 41	22 53	22 06		50
3	00	32 29	31 35	30 41	29 47	28 56	28 03	27 12	26 20	25 30	24 39	23 50	23 02	3	00
	10	33 35	32 40	31 45	30 51	29 57	29 04	28 11	27 18	26 27	25 35	24 44	23 54		10
	20	34 36	33 40	32 44	31 49	30 54	30 00	29 06	28 12	27 19	26 26	25 34	24 43		20
	30	35 32	34 36	33 40	32 43	31 48	30 52	29 58	29 03	28 09	27 15	26 22	25 30		30
	40	36 25	35 27	34 30	33 33	32 37	31 41	30 46	29 50	28 56	28 01	27 06	26 12		40
	50	37 12	36 15	35 18	34 20	33 23	32 26	31 30	30 34	29 38	28 43	27 47	26 52		50
4	00	37 57	36 58	36 01	35 02	34 06	33 08	32 11	31 13	30 17	29 21	28 25	27 30	4	00
	10	38 37	37 38	36 40	35 41	34 44	33 46	32 48	31 51	30 54	29 57	28 59	28 04		10
	20	39 13	38 14	37 15	36 17	35 18	34 20	33 22	32 24	31 26	30 29	29 31	28 35		20
	30	39 45	38 46	37 48	36 48	35 50	34 51	33 53	32 54	31 55	30 57	29 59	29 03		30
	40	40 14	39 14	38 15	37 16	36 18	35 18	34 20	33 20	32 22	31 23	30 25	29 28		40
	50	40 39	39 39	38 41	37 41	36 42	35 42	34 44	33 44	32 45	31 47	30 47	29 49		50
5	00	41 01	40 01	39 02	38 02	37 03	36 03	35 04	34 04	33 05	32 06	31 06	30 08	5	00
	10	41 19	40 20	39 20	38 20	37 21	36 21	35 22	34 21	33 21	32 22	31 23	30 24		10
	20	41 34	40 34	39 34	38 34	37 35	36 35	35 35	34 35	33 35	32 35	31 36	30 37		20
	30	41 45	40 46	39 46	38 46	37 46	36 46	35 47	34 46	33 46	32 46	31 46	30 48		30
	40	41 53	40 54	39 54	38 53	37 54	36 54	35 54	34 54	33 54	32 54	31 54	30 55		40
	50	41 58	40 58	39 59	38 59	37 59	36 58	35 59	34 59	33 58	32 58	31 58	30 59		50
6	00	42 00	41 00	40 00	39 00	38 00	37 00	36 00	35 00	34 00	33 00	32 00	31 00	6	00
	10	41 58	40 58	39 59	38 59	37 59	36 58	35 59	34 59	33 58	32 58	31 58	30 59		10
	20	41 53	40 54	39 54	38 53	37 54	36 54	35 54	34 54	33 54	32 54	31 54	30 55		20
	30	41 45	40 46	39 46	38 46	37 46	36 46	35 47	34 46	33 46	32 46	31 46	30 48		30
	40	41 34	40 34	39 34	38 34	37 35	36 35	35 35	34 35	33 35	32 35	31 36	30 37		40
	50	41 19	40 20	39 20	38 20	37 21	36 21	35 22	34 21	33 21	32 22	31 23	30 24		50
7	00	41 01	40 01	39 02	38 02	37 03	36 03	35 04	34 04	33 05	32 06	31 06	30 08	7	00
	10	40 19	39 19	38 20	37 21	36 21	35 22	34 22	33 22	32 23	31 23	30 24	29 25		10
	20	40 14	39 14	38 15	37 16	36 18	35 18	34 20	33 20	32 22	31 23	30 25	29 28		20
	30	39 45	38 46	37 48	36 48	35 50	34 51	33 53	32 54	31 55	30 57	29 59	29 03		30
	40	39 13	38 14	37 15	36 17	35 18	34 20	33 22	32 24	31 26	30 29	29 31	28 35		40
	50	38 37	37 38	36 40	35 41	34 44	33 46	32 48	31 51	30 54	29 57	28 59	28 04		50
8	00	37 57	36 58	36 01	35 02	34 06	33 08	32 11	31 13	30 17	29 21	28 25	27 30	8	00
	10	37 12	36 15	35 18	34 20	33 23	32 26	31 30	30 34	29 38	28 43	27 47	26 52		10
	20	36 25	35 27	34 30	33 33	32 37	31 41	30 46	29 50	28 56	28 01	27 06	26 12		20
	30	35 32	34 36	33 40	32 43	31 48	30 52	29 58	29 03	28 09	27 15	26 22	25 30		30
	40	34 36	33 40	32 44	31 49	30 54	30 00	29 06	28 12	27 19	26 26	25 34	24 43		40
	50	33 35	32 40	31 45	30 51	29 57	29 04	28 11	27 18	26 27	25 35	24 44	23 54		50
9	00	32 29	31 35	30 41	29 47	28 56	28 03	27 12	26 20	25 30	24 39	23 50	23 02	9	00
	10	31 19	30 25	29 33	28 41	27 50	26 59	26 09	25 19	24 30	23 41	22 53	22 06		10
	20	30 04	29 12	28 21	27 30	26 40	25 51	25 03	24 14	23 27	22 39	21 52	21 07		20
	30	28 43	27 53	27 04	26 14	25 27	24 39	23 52	23 05	22 19	21 34	20 50	20 06		30
	40	27 19	26 30	25 42	24 55	24 09	23 33	22 38	21 53	21 09	20 25	19 43	19 01		40
	50	25 49	25 02	24 17	23 31	22 41	22 03	21 20	20 37	19 55	19 14	18 33	17 54		50
10	00	24 15	23 29	22 46	22 03	21 20	20 39	19 59	19 17	18 38	17 59	17 21	16 44	10	00
	10	22 34	21 52	21 11	20 30	19 50	19 12	18 33	17 54	17 18	16 41	16 06	15 30		10
	20	20 50	20 11	19 32	18 54	18 17	17 41	17 04	16 29	15 55	15 31	14 48	14 15		20
	30	19 00	18 24	17 48	17 13	16 40	16 05	15 33	15 00	14 29	13 57	13 26	12 57		30
	40	17 07	16 33	16 01	15 29	14 58	14 28	13 57	13 28	13 00	12 31	12 04	11 35		40
	50	15 09	14 39	14 10	13 41	13 13	12 46	12 20	11 53	11 28	11 03	10 38	10 14		50
11	00	13 07	12 41	12 15	11 50	11 26	11 03	10 39	10 16	9 54	9 33	9 12	8 50	11	00
	10	11 01	10 40	10 18	9 57	9 36	9 15	8 56	8 37	8 18	8 00	7 43	7 24		10
	20	8 53	8 35	8 18	8 01	7 43	7 27	7 12	6 56	6 41	6 26	6 11	5 58		20
	30	6 42	6 28	6 15	6 02	5 49	5 37	5 25	5 14	5 02	4 51	4 40	4 30		30
	40	4 29	4 20	4 11	4 03	3 54	3 45	3 38	3 30	3 22	3 15	3 07	3 00		40
	50	2 15	2 10	2 06	2 01	1 57	1 53	1 49	1 45	1 41	1 37	1 33	1 31		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 0°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 0°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.
h. m.	h. m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h. m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0
10	10	1 27	1 23	1 20	1 16	1 13	1 10	1 06	1 03	1 00	0 57	0 54	10
20	20	2 52	2 46	2 39	2 33	2 26	2 19	2 14	2 07	2 01	1 55	1 49	20
30	30	4 19	4 08	3 59	3 48	3 38	3 29	3 20	3 10	3 01	2 52	2 43	30
40	40	5 43	5 30	5 16	5 04	4 50	4 38	4 25	4 13	4 00	3 49	3 37	40
50	50	7 07	6 50	6 34	6 18	6 01	5 46	5 30	5 15	4 59	4 45	4 30	50
1	00	8 30	8 10	7 51	7 30	7 12	6 53	6 35	6 16	5 59	5 41	5 23	1
10	10	9 51	9 28	9 05	8 43	8 20	7 59	7 38	7 16	6 55	6 35	6 15	10
20	20	11 10	10 44	10 18	9 53	9 28	9 03	8 39	8 16	7 52	7 28	7 06	20
30	30	12 28	11 59	11 30	11 02	10 35	10 07	9 40	9 14	8 47	8 22	7 56	30
40	40	13 42	13 10	12 40	12 10	11 39	11 09	10 39	10 10	9 42	9 13	8 45	40
50	50	14 55	14 21	13 48	13 14	12 41	12 09	11 37	11 05	10 34	10 03	9 33	50
2	00	16 06	15 30	14 53	14 17	13 43	13 08	12 33	11 58	11 25	10 52	10 20	2
10	10	17 14	16 34	15 57	15 18	14 41	14 04	13 27	12 51	12 15	11 39	11 04	10
20	20	18 19	17 38	16 57	16 18	15 37	14 59	14 20	13 41	13 03	12 25	11 48	20
30	30	19 22	18 38	17 56	17 14	16 32	15 51	15 10	14 29	13 49	13 09	12 30	30
40	40	20 22	19 37	18 53	18 09	17 24	16 41	15 58	15 15	14 33	13 52	13 10	40
50	50	21 18	20 32	19 46	19 00	18 15	17 29	16 45	16 00	15 16	14 32	13 49	50
3	00	22 12	21 24	20 37	19 49	19 01	18 15	17 29	16 42	15 56	15 12	14 26	3
10	10	23 04	22 14	21 25	20 36	19 46	18 58	18 10	17 23	16 35	15 48	15 02	10
20	20	23 51	23 00	22 10	21 19	20 29	19 39	18 50	18 01	17 11	16 24	15 35	20
30	30	24 36	23 44	22 53	22 01	21 09	20 18	19 28	18 36	17 46	16 57	16 07	30
40	40	25 18	24 25	23 33	22 39	21 47	20 54	20 02	19 10	18 19	17 28	16 36	40
50	50	25 57	25 03	24 09	23 15	22 22	21 28	20 35	19 41	18 48	17 56	17 04	50
4	00	26 34	25 38	24 44	23 49	22 54	21 59	21 05	20 11	19 17	18 24	17 29	4
10	10	27 06	26 11	25 15	24 19	23 24	22 29	21 33	20 38	19 43	18 49	17 54	10
20	20	27 36	26 40	25 44	24 47	23 51	22 55	21 58	21 02	20 07	19 11	18 16	20
30	30	28 04	27 07	26 11	25 13	24 15	23 18	22 22	21 24	20 28	19 32	18 36	30
40	40	28 28	27 30	26 33	25 35	24 37	23 40	22 42	21 45	20 47	19 50	18 53	40
50	50	28 50	27 51	26 54	25 55	24 57	23 59	23 00	22 02	21 05	20 07	19 09	50
5	00	29 08	28 09	27 12	26 12	25 14	24 15	23 17	22 17	21 19	20 21	19 22	5
10	10	29 24	28 25	27 27	26 27	25 28	24 29	23 29	22 30	21 31	20 33	19 34	10
20	20	29 37	28 38	27 39	26 39	25 39	24 40	23 41	22 41	21 41	20 43	19 43	20
30	30	29 47	28 48	27 48	26 48	25 49	24 48	23 49	22 49	21 50	20 50	19 51	30
40	40	29 54	28 54	27 55	26 55	25 55	24 55	23 56	22 56	21 56	20 56	19 56	40
50	50	29 58	28 58	27 59	26 58	25 59	24 58	23 59	22 59	21 59	20 59	19 59	50
6	00	30 00	29 00	28 00	27 00	26 00	25 00	24 00	23 00	22 00	21 00	20 00	6
10	10	29 58	28 58	27 59	26 58	25 59	24 58	23 59	22 59	21 59	20 59	19 59	10
20	20	29 54	28 54	27 55	26 55	25 55	24 55	23 56	22 56	21 56	20 56	19 56	20
30	30	29 47	28 48	27 48	26 48	25 49	24 48	23 49	22 49	21 50	20 50	19 51	30
40	40	29 37	28 38	27 39	26 39	25 39	24 40	23 41	22 41	21 41	20 43	19 43	40
50	50	29 24	28 25	27 27	26 27	25 28	24 29	23 29	22 30	21 31	20 33	19 34	50
7	00	29 08	28 09	27 12	26 12	25 14	24 15	23 17	22 17	21 19	20 21	19 22	7
10	10	28 50	27 51	26 54	25 55	24 57	23 59	23 00	22 02	21 05	20 07	19 09	10
20	20	28 28	27 30	26 33	25 35	24 37	23 40	22 42	21 45	20 47	19 50	18 53	20
30	30	28 04	27 07	26 11	25 13	24 15	23 18	22 22	21 24	20 28	19 32	18 36	30
40	40	27 36	26 40	25 44	24 47	23 51	22 55	21 58	21 02	20 07	19 11	18 16	40
50	50	27 06	26 11	25 15	24 19	23 24	22 29	21 33	20 38	19 43	18 49	17 54	50
8	00	26 34	25 38	24 44	23 49	22 54	21 59	21 05	20 11	19 17	18 24	17 29	8
10	10	25 57	25 03	24 09	23 15	22 22	21 28	20 35	19 41	18 48	17 56	17 04	10
20	20	25 18	24 25	23 33	22 39	21 47	20 54	20 02	19 10	18 19	17 28	16 36	20
30	30	24 36	23 44	22 53	22 01	21 09	20 18	19 28	18 36	17 46	16 57	16 07	30
40	40	23 51	23 00	22 10	21 19	20 29	19 39	18 50	18 01	17 11	16 24	15 35	40
50	50	23 04	22 14	21 25	20 36	19 46	18 58	18 10	17 23	16 35	15 48	15 02	50
9	00	22 12	21 24	20 37	19 49	19 01	18 15	17 29	16 42	15 56	15 12	14 26	9
10	10	21 18	20 32	19 46	19 00	18 15	17 29	16 45	16 00	15 16	14 32	13 49	10
20	20	20 22	19 37	18 53	18 09	17 24	16 41	15 58	15 15	14 33	13 52	13 10	20
30	30	19 22	18 38	17 56	17 14	16 32	15 51	15 10	14 29	13 49	13 09	12 30	30
40	40	18 19	17 38	16 57	16 18	15 37	14 59	14 20	13 41	13 03	12 25	11 48	40
50	50	17 14	16 34	15 57	15 18	14 41	14 04	13 27	12 51	12 15	11 39	11 04	50
10	00	16 06	15 30	14 53	14 17	13 43	13 08	12 33	11 58	11 25	10 52	10 20	10
10	10	14 55	14 21	13 48	13 14	12 41	12 09	11 37	11 05	10 34	10 03	9 33	10
20	20	13 42	13 10	12 40	12 10	11 39	11 09	10 39	10 10	9 42	9 13	8 45	20
30	30	12 28	11 59	11 30	11 02	10 35	10 07	9 40	9 14	8 47	8 22	7 56	30
40	40	11 10	10 44	10 18	9 53	9 28	9 03	8 39	8 16	7 52	7 28	7 06	40
50	50	9 51	9 28	9 05	8 43	8 20	7 59	7 38	7 16	6 55	6 35	6 15	50
11	00	8 30	8 10	7 51	7 30	7 12	6 53	6 35	6 16	5 59	5 41	5 23	11
10	10	7 07	6 50	6 34	6 18	6 01	5 46	5 30	5 15	4 59	4 45	4 30	10
20	20	5 42	5 30	5 16	5 04	4 50	4 38	4 25	4 13	4 00	3 49	3 37	20
30	30	4 19	4 08	3 59	3 48	3 38	3 29	3 20	3 10	3 01	2 52	2 43	30
40	40	2 52	2 46	2 39	2 33	2 26	2 19	2 14	2 07	2 01	1 55	1 49	40
50	50	1 27	1 23	1 20	1 16	1 13	1 10	1 06	1 03	1 00	0 57	0 54	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 1°. <small>Hour Angle.</small>		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 1°.	
<small>h.</small>	<small>m.</small>	24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	<small>h.</small>	<small>m.</small>
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	5 49	5 33	5 18	5 04	4 51	4 39	4 27	4 17	4 07	3 57	3 47	3 39		10
	20	11 31	10 59	10 30	10 03	9 37	9 13	8 51	8 29	8 10	7 51	7 33	7 17		20
	30	16 58	16 12	15 30	14 51	14 14	13 40	13 07	12 37	12 08	11 40	11 14	10 49		30
	40	22 06	21 09	20 16	19 26	18 40	17 55	17 14	16 34	15 57	15 22	14 48	14 16		40
	50	26 49	25 43	24 42	23 44	22 49	21 57	21 07	20 21	19 36	18 54	18 14	17 35		50
1	00	31 08	29 56	28 48	27 43	26 42	25 42	24 47	23 54	23 04	22 15	21 29	20 45	1	00
	10	35 03	33 46	32 34	31 24	30 17	29 13	28 12	27 14	26 18	25 25	24 34	23 45		10
	20	38 34	37 15	35 58	34 45	33 34	32 26	31 23	30 20	29 21	28 23	27 28	26 34		20
	30	41 44	40 22	39 04	37 48	36 35	35 25	34 17	33 12	32 10	31 09	30 11	29 14		30
	40	44 33	43 11	41 51	40 34	39 20	38 08	36 58	35 51	34 46	33 43	32 41	31 42		40
	50	47 03	45 41	44 21	43 04	41 49	40 36	39 25	38 16	37 10	36 05	35 02	34 00		50
2	00	49 18	47 56	46 37	45 20	44 04	42 51	41 39	40 30	39 21	38 15	37 11	36 08	2	00
	10	51 18	49 57	48 39	47 22	46 06	44 52	43 41	42 31	41 22	40 15	39 10	38 06		10
	20	53 05	51 45	50 28	49 11	47 57	46 44	45 32	44 22	43 12	42 05	40 59	39 55		20
	30	54 41	53 23	52 07	50 51	49 37	48 25	47 13	46 03	44 54	43 46	42 40	41 34		30
	40	56 06	54 50	53 35	52 20	51 07	49 55	48 45	47 34	46 26	45 19	44 12	43 06		40
	50	57 23	56 08	54 54	53 41	52 29	51 18	50 07	48 58	47 50	46 42	45 36	44 30		50
3	00	58 31	57 18	56 06	54 54	53 42	52 32	51 23	50 14	49 06	47 59	46 53	45 48	3	00
	10	59 33	58 21	57 10	55 59	54 49	53 39	52 30	51 23	50 16	49 10	48 04	46 58		10
	20	60 28	59 18	58 07	56 58	55 48	54 40	53 32	52 25	51 18	50 13	49 07	48 02		20
	30	61 17	60 08	58 58	57 50	56 42	55 34	54 28	53 22	52 16	51 10	50 05	49 01		30
	40	62 01	60 53	59 45	58 38	57 31	56 24	55 18	54 12	53 07	52 02	50 58	49 53		40
	50	62 40	61 33	60 27	59 21	58 13	57 08	56 02	54 57	53 53	52 49	51 45	50 41		50
4	00	63 15	62 09	61 03	59 58	58 53	57 48	56 43	55 39	54 35	53 30	52 27	51 24	4	00
	10	63 46	62 41	61 37	60 32	59 27	58 22	57 18	56 15	55 12	54 08	53 05	52 02		10
	20	64 13	63 09	62 04	61 01	59 57	58 53	57 51	56 47	55 44	54 42	53 39	52 37		20
	30	64 36	63 33	62 30	61 27	60 23	59 21	58 18	57 15	56 13	55 11	54 09	53 07		30
	40	64 57	63 54	62 52	61 49	60 47	59 44	58 42	57 40	56 38	55 37	54 35	53 33		40
	50	65 14	64 12	63 10	62 08	61 07	60 04	59 02	58 01	56 59	55 58	54 57	53 55		50
5	00	65 29	64 27	63 25	62 24	61 22	60 21	59 20	58 19	57 17	56 17	55 15	54 14	5	00
	10	65 40	64 39	63 38	62 37	61 36	60 35	59 34	58 33	57 33	56 32	55 31	54 31		10
	20	65 49	64 49	63 48	62 47	61 47	60 46	59 46	58 44	57 44	56 44	55 43	54 43		20
	30	65 55	64 55	63 55	62 55	61 54	60 54	59 53	58 53	57 52	56 52	55 52	54 52		30
	40	66 00	64 59	63 59	62 59	61 58	60 59	59 58	58 59	57 58	56 58	55 58	54 57		40
	50	66 01	65 01	64 01	63 01	62 01	61 01	60 01	59 00	58 01	57 01	56 00	55 01		50
6	00	66 00	65 00	64 00	63 00	62 00	61 00	60 00	59 00	58 00	57 00	56 00	55 00	6	00
	10	65 56	64 56	63 56	62 56	61 57	60 57	59 57	58 57	57 57	56 57	55 57	54 57		10
	20	65 51	64 51	63 51	62 50	61 50	60 50	59 50	58 50	57 50	56 50	55 50	54 51		20
	30	65 43	64 42	63 42	62 41	61 41	60 42	59 42	58 42	57 42	56 41	55 41	54 41		30
	40	65 32	64 31	63 31	62 30	61 30	60 30	59 29	58 29	57 29	56 28	55 28	54 28		40
	50	65 18	64 18	63 17	62 16	61 16	60 15	59 14	58 14	57 13	56 14	55 12	54 12		50
7	00	65 03	64 01	63 00	61 59	60 58	59 57	58 56	57 56	56 55	55 55	54 54	53 54	7	00
	10	64 43	63 41	62 40	61 38	60 37	59 36	58 35	57 34	56 33	55 32	54 32	53 31		10
	20	64 22	63 19	62 17	61 15	60 13	59 12	58 10	57 09	56 07	55 06	54 05	53 05		20
	30	63 57	62 53	61 51	60 49	59 46	58 44	57 42	56 41	55 39	54 37	53 36	52 36		30
	40	63 28	62 24	61 22	60 18	59 15	58 13	57 10	56 08	55 06	54 05	53 02	52 01		40
	50	62 56	61 52	60 48	59 44	58 40	57 37	56 34	55 32	54 30	53 28	52 25	51 24		50
8	00	62 21	61 16	60 11	59 06	58 02	56 58	55 55	54 52	53 49	52 46	51 44	50 42	8	00
	10	61 40	60 34	59 29	58 24	57 19	56 14	55 11	54 07	53 04	52 01	50 58	49 56		10
	20	60 57	59 50	58 43	57 37	56 32	55 26	54 22	53 17	52 14	51 10	50 07	49 04		20
	30	60 08	59 00	57 52	56 45	55 39	54 33	53 28	52 23	51 18	50 15	49 12	48 09		30
	40	59 14	58 04	56 56	55 48	54 41	53 34	52 28	51 23	50 19	49 14	48 11	47 08		40
	50	58 13	57 02	55 52	54 44	53 37	52 30	51 23	50 17	49 11	48 07	47 03	46 01		50
9	00	57 06	55 55	54 44	53 34	52 26	51 18	50 10	49 04	47 59	46 54	45 50	44 47	9	00
	10	55 52	54 39	53 28	52 17	51 08	49 59	48 52	47 45	46 40	45 34	44 31	43 27		10
	20	54 30	53 16	52 04	50 52	49 43	48 33	47 25	46 18	45 12	44 08	43 04	42 01		20
	30	52 59	51 44	50 31	49 19	48 08	46 58	45 51	44 44	43 38	42 33	41 30	40 28		30
	40	51 18	50 02	48 48	47 36	46 24	45 15	44 07	43 00	41 55	40 50	39 47	38 46		40
	50	49 27	48 09	46 55	45 42	44 31	43 21	42 13	41 07	39 02	38 59	37 56	36 56		50
10	00	47 22	46 06	44 51	43 38	42 27	41 18	40 10	39 04	38 01	36 58	35 57	34 57	10	00
	10	45 04	43 47	42 33	41 20	40 09	39 02	37 55	36 51	35 48	34 47	33 48	32 50		10
	20	42 31	41 14	40 00	38 49	37 40	36 33	35 28	34 24	33 25	32 26	31 29	30 33		20
	30	39 41	38 26	37 14	36 04	34 56	33 52	32 49	31 49	30 51	29 54	29 00	28 07		30
	40	36 32	35 20	34 09	33 03	31 58	30 56	29 57	29 00	28 05	27 11	26 21	25 31		40
	50	33 04	31 55	30 48	29 45	28 44	27 46	26 52	25 58	25 07	24 18	23 32	22 45		50
11	00	29 16	28 10	27 00	26 11	25 16	24 23	23 32	22 44	21 58	21 14	20 31	19 51	11	00
	10	25 06	24 08	23 13	22 21	21 31	20 45	20 00	19 19	18 38	18 00	17 23	16 47		10
	20	20 36	19 46	18 59	18 15	17 34	16 54	16 17	15 42	15 08	14 36	14 05	13 37		20
	30	15 46	15 06	14 30	13 55	13 23	12 52	12 22	11 55	11 29	11 05	10 40	10 19		30
	40	10 40	10 13	9 48	9 23	9 01	8 40	8 20	8 01	7 44	7 27	7 11	6 56		40
	50	5 24	5 09	4 56	4 43	4 33	4 22	4 12	4 02	3 53	3 44	3 37	3 29		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 1°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 1°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	3 31	3 23	3 17	3 09	3 02	2 56	2 50	2 44	2 38	2 32	2 28	2 22		10
	20	7 06	6 46	6 30	6 17	6 03	5 51	5 38	5 27	5 15	5 04	4 53	4 44		20
	30	10 26	10 03	9 42	9 22	9 01	8 43	8 25	8 08	7 50	7 34	7 19	7 03		30
	40	13 46	13 16	12 48	12 22	11 56	11 31	11 07	10 45	10 22	10 01	9 41	9 21		40
	50	16 58	16 23	15 49	15 17	14 45	14 15	13 47	13 18	12 51	12 25	12 00	11 36		50
1	00	20 03	19 21	18 42	18 04	17 28	16 54	16 20	15 48	15 15	14 44	14 16	13 46	1	00
	10	22 58	22 12	21 28	20 47	20 06	19 25	18 48	18 11	17 35	17 00	16 27	15 54		10
	20	25 44	24 54	24 05	23 20	22 34	21 51	21 09	20 28	19 49	19 10	18 33	17 57		20
	30	28 19	27 26	26 35	25 45	24 56	24 10	23 24	22 40	21 57	21 15	20 35	19 55		30
	40	30 45	29 49	28 54	28 02	27 11	26 21	25 32	24 46	23 59	23 15	22 31	21 48		40
	50	33 01	32 02	31 06	30 10	29 16	28 24	27 34	26 44	25 55	25 08	24 21	23 36		50
2	00	35 06	34 07	33 08	32 11	31 16	30 21	29 28	28 36	27 45	26 55	26 07	25 19	2	00
	10	37 04	36 02	35 02	34 04	33 06	32 09	31 15	30 21	29 28	28 36	27 46	26 56		10
	20	38 51	37 48	36 47	35 48	34 49	33 52	32 55	31 59	31 05	30 12	29 20	28 28		20
	30	40 30	39 27	38 25	37 25	36 26	35 26	34 29	33 33	32 36	31 42	30 48	29 54		30
	40	42 03	40 59	39 56	38 55	37 54	36 55	35 57	34 58	34 01	33 05	32 10	31 16		40
	50	43 27	42 22	41 19	40 18	39 17	38 16	37 17	36 19	35 21	34 24	33 27	32 31		50
3	00	44 43	43 40	42 36	41 34	40 32	39 31	38 32	37 33	36 34	35 36	34 39	33 43	3	00
	10	45 54	44 50	43 47	42 44	41 43	40 41	39 42	38 42	37 43	36 44	35 46	34 49		10
	20	46 58	45 55	44 51	43 48	42 47	41 46	40 46	39 45	38 46	37 46	36 48	35 49		20
	30	47 57	46 53	45 50	44 48	43 46	42 45	41 44	40 43	39 43	38 44	37 45	36 46		30
	40	48 50	47 47	46 44	45 42	44 39	43 38	42 37	41 37	40 36	39 37	38 37	37 38		40
	50	49 38	48 35	47 32	46 30	45 29	44 27	43 26	42 25	41 25	40 25	39 26	38 26		50
4	00	50 22	49 18	48 16	47 14	46 13	45 11	44 10	43 10	42 09	41 09	40 08	39 09	4	00
	10	51 00	49 58	48 56	47 54	46 53	45 51	44 50	43 50	42 49	41 48	40 48	39 18		10
	20	51 35	50 33	49 31	48 29	47 28	46 27	45 26	44 26	43 24	42 24	41 24	40 24		20
	30	52 05	51 03	50 02	48 59	47 59	46 58	45 58	44 57	43 56	42 55	41 56	40 55		30
	40	52 31	51 30	50 28	49 27	48 26	47 26	46 25	45 24	44 24	43 24	42 23	41 24		40
	50	52 54	51 53	50 52	49 52	48 51	47 50	46 50	45 48	44 48	43 48	42 47	41 47		50
5	00	53 14	52 13	51 12	50 11	49 10	48 10	47 09	46 09	45 09	44 09	43 08	42 08	5	00
	10	53 30	52 29	51 29	50 28	49 27	48 27	47 27	46 26	45 26	44 26	43 26	42 25		10
	20	53 42	52 42	51 41	50 41	49 40	48 40	47 39	46 40	45 40	44 39	43 38	42 38		20
	30	53 52	52 51	51 51	50 51	49 50	48 51	47 50	46 50	45 50	44 49	43 49	42 49		30
	40	53 58	52 57	51 57	50 58	49 57	48 57	47 56	46 57	45 57	44 56	43 56	42 56		40
	50	54 00	53 01	52 00	51 00	50 00	49 00	48 00	47 00	46 00	45 00	44 00	42 59		50
6	00	54 01	53 00	52 01	51 01	50 00	49 01	48 01	47 00	46 01	45 00	44 00	43 00	6	00
	10	53 57	52 57	51 57	50 57	49 57	48 58	47 57	46 57	45 57	44 57	43 58	42 57		10
	20	53 51	52 51	51 50	50 51	49 51	48 50	47 51	46 51	45 51	44 51	43 51	42 51		20
	30	53 41	52 41	51 41	50 41	49 41	48 41	47 41	46 42	45 42	44 41	43 42	42 42		30
	40	53 28	52 28	51 29	50 28	49 28	48 29	47 28	46 29	45 28	44 29	43 29	42 29		40
	50	53 12	52 12	51 12	50 12	49 12	48 12	47 12	46 12	45 12	44 13	43 13	42 13		50
7	00	52 52	51 53	50 53	49 53	48 52	47 53	46 52	45 53	44 53	43 53	42 54	41 54	7	00
	10	52 31	51 30	50 29	49 29	48 29	47 29	46 29	45 30	44 30	43 30	42 30	41 30		10
	20	52 04	51 04	50 03	49 03	48 02	47 03	46 02	45 03	44 03	43 03	42 04	41 05		20
	30	51 34	50 34	49 32	48 32	47 31	46 32	45 32	44 32	43 32	42 32	41 33	40 34		30
	40	50 59	49 59	48 59	47 58	46 58	45 58	44 58	43 58	42 59	41 59	40 59	39 59		40
	50	50 23	49 21	48 20	47 20	46 19	45 19	44 19	43 20	42 21	41 20	40 22	39 23		50
8	00	49 41	48 39	47 38	46 37	45 36	44 37	43 37	42 37	41 38	40 39	39 40	38 41	8	00
	10	48 54	47 52	46 51	45 50	44 50	43 50	42 50	41 51	40 52	39 53	38 55	37 57		10
	20	48 03	47 01	46 00	45 00	44 00	43 00	42 00	41 01	40 02	39 03	38 05	37 08		20
	30	47 07	46 04	45 03	44 02	43 02	42 02	41 03	40 05	39 07	38 08	37 10	36 13		30
	40	46 05	45 03	44 02	43 01	42 01	41 02	40 05	39 04	38 07	37 09	36 12	35 16		40
	50	44 57	43 56	42 55	41 55	40 55	39 56	38 57	37 59	37 02	36 05	35 09	34 13		50
9	00	43 44	42 43	41 43	40 42	39 42	38 44	37 46	36 49	35 52	34 56	34 01	33 06	9	00
	10	42 25	41 24	40 23	39 24	38 25	37 28	36 29	35 33	34 38	33 42	32 48	31 54		10
	20	40 59	39 59	38 59	38 00	37 02	36 04	35 08	34 13	33 18	32 23	31 31	30 38		20
	30	39 25	38 26	37 27	36 29	35 31	34 36	33 40	32 46	31 52	30 59	29 67	28 76		30
	40	37 44	36 46	35 47	34 51	33 54	33 00	32 06	31 13	30 21	29 29	28 39	27 49		40
	50	35 50	34 59	34 02	33 06	32 11	31 18	30 25	29 34	28 44	27 54	27 06	26 19		50
10	00	34 00	33 03	32 08	31 14	30 21	29 30	28 38	27 49	27 01	26 14	25 27	24 42	10	00
	10	31 54	30 59	29 59	29 14	28 23	27 34	26 45	25 59	25 12	24 27	23 43	23 00		10
	20	29 49	28 47	27 56	27 07	26 18	25 30	24 46	24 01	23 18	22 36	21 54	21 14		20
	30	27 15	26 27	25 39	24 52	24 07	23 23	22 40	21 58	21 18	20 38	20 00	19 22		30
	40	24 43	23 57	23 13	22 29	21 47	21 07	20 27	19 49	19 12	18 36	18 01	17 26		40
	50	22 02	21 20	20 39	20 00	19 22	18 45	18 09	17 35	17 01	16 29	15 57	15 26		50
11	00	19 12	18 34	17 58	17 23	16 50	16 17	15 46	15 15	14 46	14 17	13 49	13 23	11	00
	10	16 24	15 42	15 10	14 41	14 11	13 44	13 16	12 51	12 26	12 01	11 37	11 14		10
	20	13 00	12 42	12 17	11 52	11 28	11 05	10 43	10 22	10 02	9 42	9 23	9 03		20
	30	9 58	9 36	9 17	8 58	8 40	8 22	8 06	7 50	7 34	7 19	7 04	6 50		30
	40	6 41	6 27	6 13	6 01	5 49	5 37	5 25	5 15	5 04	4 54	4 44	4 35		40
	50	3 21	3 14	3 08	3 01	2 55	2 50	2 44	2 38	2 32	2 27	2 23	2 18		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 1°.			DECLINATION—SAME NAME AS—LATITUDE.																LATITUDE 1°.		
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.							
h.	m.	0	1	0	1	0	1	0	1	0	1	0	1	0	1	h.	m.				
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00				
	10	2 17	2 12	2 07	2 03	1 59	1 54	1 50	1 46	1 43	1 39	1 35	1 31	2 17	2 12		10				
	20	4 33	4 24	4 15	4 06	3 57	3 48	3 41	3 32	3 24	3 17	3 09	3 02	4 33	4 24		20				
	30	6 48	6 35	6 20	6 07	5 54	5 41	5 29	5 17	5 06	4 54	4 43	4 32	6 48	6 35		30				
	40	9 01	8 43	8 25	8 08	7 50	7 33	7 17	7 01	6 45	6 30	6 16	6 01	9 01	8 43		40				
	50	11 12	10 49	10 27	10 05	9 44	9 23	9 03	8 43	8 24	8 05	7 47	7 29	11 12	10 49		50				
1	00	13 19	12 52	12 25	12 00	11 35	11 11	10 47	10 24	10 01	9 39	9 17	8 56	13 19	12 52	1	00				
	10	15 22	14 52	14 21	13 53	13 24	12 55	12 29	12 02	11 36	11 10	10 45	10 20	15 22	14 52		10				
	20	17 21	16 47	16 14	15 42	15 09	14 38	14 09	13 38	13 08	12 39	12 12	11 44	17 21	16 47		20				
	30	19 17	18 39	18 02	17 26	16 51	16 17	15 43	15 10	14 37	14 06	13 35	13 05	19 17	18 39		30				
	40	21 07	20 27	19 47	19 08	18 30	17 53	17 15	16 40	16 05	15 30	14 56	14 23	21 07	20 27		40				
	50	22 52	22 09	21 26	20 45	20 04	19 24	18 44	18 06	17 28	16 51	16 15	15 38	22 52	22 09		50				
2	00	24 32	23 47	23 02	22 18	21 34	20 53	20 11	19 30	18 49	18 10	17 31	16 52	24 32	23 47	2	00				
	10	26 08	25 19	24 33	23 47	23 01	22 17	21 32	20 49	20 06	19 24	18 44	18 02	26 08	25 19		10				
	20	27 37	26 47	25 59	25 11	24 22	23 36	22 51	22 05	21 20	20 37	19 53	19 10	27 37	26 47		20				
	30	29 02	28 11	27 21	26 31	25 41	24 53	24 05	23 18	22 31	21 45	21 00	20 15	29 02	28 11		30				
	40	30 22	29 30	28 37	27 46	26 55	26 05	25 15	24 27	23 38	22 50	22 03	21 17	30 22	29 30		40				
	50	31 37	30 43	29 49	28 57	28 04	27 13	26 21	25 31	24 41	23 52	23 04	22 15	31 37	30 43		50				
3	00	32 47	31 51	30 57	30 03	29 10	28 18	27 24	26 32	25 41	24 50	24 00	23 11	32 47	31 51	3	00				
	10	33 52	32 56	32 00	31 05	30 11	29 17	28 24	27 31	26 38	25 46	24 54	24 03	33 52	32 56		10				
	20	34 53	33 56	32 59	32 03	31 08	30 13	29 18	28 24	27 30	26 37	25 44	24 51	34 53	33 56		20				
	30	35 49	34 51	33 54	32 57	32 01	31 05	30 09	29 14	28 19	27 26	26 31	25 38	35 49	34 51		30				
	40	36 40	35 42	34 44	33 47	32 50	31 53	30 57	30 01	29 05	28 10	27 15	26 20	36 40	35 42		40				
	50	37 27	36 29	35 30	34 33	33 35	32 38	31 41	30 45	29 47	28 52	27 56	27 00	37 27	36 29		50				
4	00	38 10	37 11	36 12	35 15	34 16	33 19	32 21	31 24	30 27	29 30	28 34	27 37	38 10	37 11	4	00				
	10	38 49	37 50	36 51	35 53	34 54	33 56	32 58	32 00	31 02	30 04	29 07	28 10	38 49	37 50		10				
	20	39 25	38 25	37 26	36 28	35 28	34 30	33 30	32 33	31 34	30 36	29 38	28 40	39 25	38 25		20				
	30	39 55	38 56	37 56	36 58	35 58	34 59	34 01	33 01	32 03	31 04	30 07	29 08	39 55	38 56		30				
	40	40 23	39 24	38 24	37 25	36 25	35 26	34 26	33 28	32 28	31 29	30 31	29 32	40 23	39 24		40				
	50	40 48	39 48	38 48	37 49	36 49	35 49	34 50	33 50	32 50	31 51	30 53	29 53	40 48	39 48		50				
5	00	41 08	40 08	39 09	38 08	37 09	36 09	35 09	34 10	33 10	32 11	31 11	30 12	41 08	40 08	5	00				
	10	41 25	40 25	39 25	38 25	37 26	36 26	35 25	34 26	33 26	32 27	31 27	30 27	41 25	40 25		10				
	20	41 38	40 39	39 39	38 39	37 38	36 39	35 38	34 38	33 39	32 40	31 39	30 39	41 38	40 39		20				
	30	41 49	40 49	39 49	38 49	37 49	36 50	35 49	34 49	33 48	32 49	31 49	30 49	41 49	40 49		30				
	40	41 56	40 57	39 57	38 57	37 56	36 56	35 56	34 56	33 55	32 55	31 56	30 56	41 56	40 57		40				
	50	42 00	41 00	40 00	39 01	38 00	37 00	36 00	35 00	34 00	33 00	32 00	31 00	42 00	41 00		50				
6	00	42 00	41 00	40 01	39 00	38 01	37 00	36 01	35 00	34 00	33 00	32 00	31 00	42 00	41 00	6	00				
	10	41 58	40 57	39 58	38 58	37 58	36 58	35 57	34 58	33 58	32 57	31 58	30 58	41 58	40 57		10				
	20	41 51	40 52	39 53	38 53	37 53	36 53	35 52	34 52	33 52	32 52	31 53	30 53	41 51	40 52		20				
	30	41 43	40 42	39 42	38 44	37 44	36 44	35 44	34 44	33 44	32 44	31 45	30 45	41 43	40 42		30				
	40	41 30	40 30	39 30	38 31	37 31	36 31	35 32	34 33	33 33	32 33	31 34	30 34	41 30	40 30		40				
	50	41 13	40 15	39 15	38 16	37 15	36 16	35 17	34 18	33 18	32 19	31 20	30 20	41 13	40 15		50				
7	00	40 54	39 55	38 56	37 57	36 57	35 58	34 59	34 00	33 01	32 02	31 03	30 04	40 54	39 55	7	00				
	10	40 30	39 33	38 33	37 34	36 35	35 37	34 37	33 39	32 40	31 41	30 43	29 44	40 30	39 33		10				
	20	40 05	39 06	38 07	37 09	36 10	35 12	34 13	33 14	32 16	31 17	30 20	29 22	40 05	39 06		20				
	30	39 36	38 37	37 38	36 40	35 41	34 43	33 45	32 47	31 49	30 51	29 54	28 56	39 36	38 37		30				
	40	39 02	38 04	37 05	36 08	35 10	34 12	33 14	32 17	31 19	30 21	29 25	28 28	39 02	38 04		40				
	50	38 25	37 27	36 29	35 32	34 34	33 37	32 39	31 42	30 45	29 48	28 53	27 56	38 25	37 27		50				
8	00	37 44	36 47	35 49	34 52	33 55	32 58	32 01	31 05	30 09	29 13	28 17	27 22	37 44	36 47	8	00				
	10	36 59	36 02	35 05	34 08	33 12	32 16	31 20	30 25	29 29	28 33	27 39	26 44	36 59	36 02		10				
	20	36 10	35 14	34 17	33 22	32 25	31 30	30 34	29 40	28 45	27 51	26 58	26 04	36 10	35 14		20				
	30	35 17	34 21	33 25	32 31	31 35	30 42	29 46	28 52	27 59	27 06	26 13	25 21	35 17	34 21		30				
	40	34 20	33 25	32 29	31 35	30 41	29 48	28 55	28 02	27 09	26 17	25 25	24 34	34 20	33 25		40				
	50	33 18	32 24	31 29	30 37	29 44	28 51	27 59	27 07	26 16	25 25	24 34	23 45	33 18	32 24		50				
9	00	32 12	31 18	30 27	29 34	28 42	27 50	26 59	26 09	25 19	24 29	23 40	22 52	32 12	31 18	9	00				
	10	31 02	30 09	29 17	28 26	27 35	26 46	25 56	25 08	24 18	23 31	22 44	21 56	31 02	30 09		10				
	20	29 46	28 55	28 05	27 15	26 26	25 38	24 49	24 03	23 15	22 29	21 44	20 58	29 46	28 55		20				
	30	28 26	27 36	26 47	25 00	24 13	23 26	22 39	22 54	22 08	21 23	20 40	19 56	28 26	27 36		30				
	40	27 01	26 14	25 26	24 40	23 55	23 10	22 25	21 42	20 58	20 16	19 34	18 51	27 01	26 14		40				
	50	25 31	24 46	24 00	23 17	22 33	21 49	21 08	20 26	19 45	19 03	18 24	17 45	25 31	24 46		50				
10	00	23 58	23 14	22 31	21 48	21 07	20 26	19 46	19 07	18 28	17 50	17 12	16 35	23 58	23 14	10	00				
	10	22 18	21 37	20 56	20 16	19 37	18 59	18 21	17 45	17 07	16 32	15 58	15 22	22 18	21 37		10				
	20	20 34	19 55	19 17	18 41	18 04	17 29	16 53	16 19	15 45	15 12	14 39	14 07	20 34	19 55		20				
	30	18 46																			

AZIMUTH OR TRUE BEARING.

LATITUDE 1°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 1°.			
Hour Angle.			60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	1 27	1 24	1 21	1 17	1 14	1 11	1 07	1 04	1 01	0 58	0 55	0 55	1	10	
	20	2 55	2 48	2 41	2 34	2 28	2 21	2 15	2 08	2 02	1 56	1 49	1 49	2	20	
	30	4 22	4 11	4 00	3 51	3 40	3 30	3 21	3 12	3 02	2 53	2 44	2 44	3	30	
	40	5 47	5 33	5 20	5 06	4 53	4 40	4 27	4 15	4 03	3 50	3 38	3 38	4	40	
	50	7 12	6 54	6 38	6 21	6 04	5 49	5 33	5 17	5 02	4 47	4 32	4 32	5	50	
1	00	8 35	8 14	7 54	7 35	7 15	6 56	6 38	6 19	6 00	5 43	5 25	5 25	1	00	
	10	9 56	9 33	9 10	8 47	8 25	8 02	7 41	7 19	6 59	6 37	6 18	6 18	2	10	
	20	11 17	10 50	10 24	9 58	9 33	9 08	8 43	8 19	7 55	7 31	7 08	7 08	3	20	
	30	12 35	12 05	11 36	11 07	10 39	10 12	9 44	9 18	8 51	8 25	7 59	7 59	4	30	
	40	13 50	13 18	12 47	12 15	11 44	11 14	10 44	10 14	9 45	9 17	8 48	8 48	5	40	
	50	15 04	14 28	13 55	13 21	12 47	12 14	11 42	11 10	10 38	10 07	9 36	9 36	6	50	
2	00	16 14	15 37	15 00	14 25	13 48	13 13	12 38	12 04	11 29	10 56	10 22	10 22	2	00	
	10	17 22	16 43	16 04	15 25	14 48	14 10	13 32	12 56	12 19	11 43	11 08	11 08	3	10	
	20	18 28	17 47	17 06	16 24	15 44	15 04	14 24	13 46	13 08	12 29	11 51	11 51	4	20	
	30	19 31	18 47	18 04	17 21	16 39	15 57	15 15	14 35	13 54	13 13	12 34	12 34	5	30	
	40	20 31	19 45	19 00	18 15	17 31	16 48	16 04	15 20	14 38	13 56	13 14	13 14	6	40	
	50	21 27	20 40	19 53	19 07	18 21	17 36	16 50	16 05	15 20	14 37	13 53	13 53	7	50	
3	00	22 21	21 33	20 44	19 56	19 08	18 21	17 33	16 48	16 01	15 16	14 30	14 30	3	00	
	10	23 12	22 22	21 31	20 43	19 53	19 04	18 16	17 28	16 40	15 52	15 05	15 05	4	10	
	20	24 00	23 09	22 17	21 26	20 36	19 46	18 56	18 06	17 16	16 27	15 38	15 38	5	20	
	30	24 45	23 52	23 00	22 08	21 15	20 23	19 33	18 42	17 51	17 01	16 10	16 10	6	30	
	40	25 27	24 33	23 39	22 46	21 52	21 00	20 07	19 15	18 24	17 32	16 40	16 40	7	40	
	50	26 05	25 11	24 16	23 22	22 28	21 33	20 40	19 46	18 54	18 00	17 08	17 08	8	50	
4	00	26 41	25 45	24 49	23 55	23 00	22 04	21 10	20 16	19 21	18 27	17 33	17 33	4	00	
	10	27 14	26 17	25 21	24 25	23 28	22 33	21 37	20 42	19 47	18 51	17 57	17 57	5	10	
	20	27 43	26 46	25 49	24 52	23 56	22 59	22 03	21 06	20 10	19 14	18 18	18 18	6	20	
	30	28 11	27 13	26 14	25 17	24 20	23 22	22 26	21 28	20 31	19 34	18 38	18 38	7	30	
	40	28 34	27 36	26 38	25 40	24 42	23 43	22 46	21 48	20 50	19 53	18 55	18 55	8	40	
	50	28 55	27 57	26 58	25 59	25 00	24 02	23 03	22 05	21 07	20 09	19 11	19 11	9	50	
5	00	29 12	28 14	27 15	26 16	25 17	24 18	23 19	22 20	21 21	20 23	19 24	19 24	5	00	
	10	29 28	28 28	27 29	26 30	25 30	24 31	23 32	22 33	21 33	20 34	19 35	19 35	6	10	
	20	29 41	28 41	27 41	26 41	25 41	24 42	23 43	22 43	21 43	20 44	19 44	19 44	7	20	
	30	29 50	28 49	27 50	26 50	25 51	24 51	23 51	22 51	21 51	20 51	19 52	19 52	8	30	
	40	29 56	28 56	27 56	26 56	25 56	24 56	23 56	22 56	21 56	20 56	19 57	19 57	9	40	
	50	30 00	29 00	27 59	26 59	25 59	24 59	23 59	22 59	21 59	20 59	19 59	19 59	10	50	
6	00	30 00	29 01	28 00	27 01	26 00	25 00	24 00	23 00	22 00	21 00	20 01	20 01	6	00	
	10	29 58	28 58	27 59	26 59	25 59	24 58	23 58	22 58	21 58	20 58	19 58	19 58	7	10	
	20	29 54	28 53	27 53	26 54	25 54	24 55	23 54	22 55	21 55	20 55	19 56	19 56	8	20	
	30	29 46	28 46	27 46	26 47	25 47	24 47	23 48	22 49	21 49	20 49	19 50	19 50	9	30	
	40	29 35	28 35	27 36	26 37	25 38	24 38	23 39	22 40	21 41	20 42	19 42	19 42	10	40	
	50	29 22	28 23	27 24	26 25	25 26	24 27	23 27	22 29	21 30	20 31	19 33	19 33	11	50	
7	00	29 05	28 06	27 08	26 10	25 11	24 12	23 13	22 16	21 17	20 19	19 20	19 20	7	00	
	10	28 46	27 48	26 49	25 52	24 54	23 56	22 58	22 00	21 02	20 05	19 07	19 07	8	10	
	20	28 25	27 26	26 28	25 32	24 34	23 36	22 39	21 42	20 45	19 48	18 51	18 51	9	20	
	30	27 59	27 02	26 05	25 09	24 12	23 15	22 17	21 22	20 25	19 29	18 33	18 33	10	30	
	40	27 32	26 35	25 39	24 43	23 47	22 50	21 55	20 59	20 04	19 08	18 13	18 13	11	40	
	50	27 00	26 05	25 09	24 14	23 20	22 24	21 29	20 34	19 40	18 45	17 51	17 51	12	50	
8	00	26 27	25 32	24 37	23 44	22 49	21 55	21 01	20 07	19 14	18 20	17 26	17 26	8	00	
	10	25 50	24 57	24 03	23 09	22 17	21 23	20 30	19 38	18 45	17 53	17 00	17 00	9	10	
	20	25 11	24 18	23 26	22 33	21 41	20 50	19 57	19 06	18 15	17 24	16 33	16 33	10	20	
	30	24 29	23 37	22 45	21 55	21 04	20 13	19 22	18 32	17 42	16 53	16 03	16 03	11	30	
	40	23 44	22 53	22 03	21 13	20 23	19 34	18 45	17 56	17 07	16 19	15 32	15 32	12	40	
	50	22 55	22 06	21 17	20 29	19 41	18 53	18 05	17 18	16 31	15 45	14 58	14 58	13	50	
9	00	22 04	21 16	20 29	19 42	18 55	18 09	17 23	16 38	15 53	15 08	14 23	14 23	9	00	
	10	21 10	20 24	19 38	18 53	18 08	17 24	16 39	15 55	15 12	14 28	13 45	13 45	10	10	
	20	20 13	19 29	18 44	18 01	17 18	16 36	15 53	15 11	14 29	13 48	13 06	13 06	11	20	
	30	19 13	18 31	17 49	17 07	16 26	15 46	15 05	14 25	13 44	13 05	12 26	12 26	12	30	
	40	18 11	17 31	16 50	16 11	15 32	14 53	14 14	13 36	12 59	12 21	11 44	11 44	13	40	
	50	17 06	16 28	15 49	15 13	14 36	13 59	13 22	12 47	12 11	11 36	11 00	11 00	14	50	
10	00	15 59	15 22	14 46	14 11	13 36	13 02	12 28	11 55	11 22	10 48	10 15	10 15	10	00	
	10	14 48	14 15	13 41	13 09	12 36	12 04	11 32	11 01	10 28	10 00	9 29	9 29	11	10	
	20	13 36	13 05	12 34	12 04	11 34	11 05	10 35	10 07	9 38	9 10	8 42	8 42	12	20	
	30	12 21	11 53	11 25	10 57	10 29	10 03	9 36	9 10	8 44	8 19	7 53	7 53	13	30	
	40	11 04	10 39	10 14	9 48	9 24	9 00	8 36	8 13	7 49	7 26	7 03	7 03	14	40	
	50	9 45	9 23	9 00	8 39	8 17	7 56	7 34	7 14	6 53	6 33	6 12	6 12	15	50	
11	00	8 25	8 06	7 46	7 27	7 08	6 50	6 31	6 13	5 56	5 38	5 21	5 21	11	00	
	10	7 03	6 47	6 30	6 15	5 59	5 44	5 28	5 13	4 58	4 43	4 29	4 29	12	10	
	20	5 40	5 27	5 14	5 01	4 48	4 36	4 23	4 12	3 59	3 47	3 36	3 36	13	20	
	30	4 16	4 06	3 56	3 46	3 36	3 28	3 18	3 09	3 00	2 51	2 42	2 42	14	30	
	40	2 51	2 44	2 38	2 31	2 25	2 18	2 12	2 06	2 01	1 55	1 48	1 48	15	40	
	50	1 26	1 22	1 19	1 15	1 12	1 10	1 07	1 03	1 00	0 57	0 54	0 54	16	50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 2°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 2°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	°	°	°	°	°	°	°	°	°	°	°	°	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	6 02	5 46	5 30	5 15	5 01	4 48	4 36	4 25	4 14	4 04	3 54	3 45		10
	20	12 00	11 26	10 51	10 24	9 57	9 32	9 07	8 45	8 24	8 04	7 46	7 28		20
	30	17 38	16 49	16 04	15 22	14 43	14 06	13 32	12 59	12 29	12 00	11 33	11 06		30
	40	22 55	21 55	20 59	20 05	19 15	18 28	17 45	17 03	16 24	15 46	15 11	14 38		40
	50	27 47	26 36	25 31	24 30	23 31	22 36	21 44	20 55	20 08	19 24	18 41	18 01		50
1	00	32 10	30 54	29 42	28 33	27 28	26 27	25 28	24 32	23 39	22 49	22 01	21 14	1	00
	10	36 09	34 47	33 30	32 17	31 08	30 01	28 57	27 56	26 58	26 02	25 08	24 17		10
	20	39 41	38 17	36 57	35 41	34 26	33 17	32 09	31 03	30 02	29 02	28 04	27 09		20
	30	42 50	41 25	40 03	38 45	37 29	36 15	35 05	33 58	32 53	31 49	30 48	29 50		30
	40	45 39	44 13	42 50	41 31	40 13	38 59	37 46	36 37	35 29	34 24	33 21	32 19		40
	50	48 07	46 42	45 20	44 00	42 42	41 26	40 12	39 02	37 53	36 46	35 40	34 37		50
2	00	50 19	48 56	47 34	46 14	44 56	43 40	42 26	41 14	40 05	38 56	37 50	36 46	2	00
	10	52 17	50 54	49 33	48 14	46 56	45 41	44 27	43 15	42 04	40 56	39 49	38 44		10
	20	54 01	52 40	51 21	50 03	48 46	47 31	46 17	45 04	43 54	42 45	41 38	40 32		20
	30	55 34	54 15	52 56	51 40	50 24	49 09	47 56	46 45	45 34	44 25	43 17	42 10		30
	40	56 57	55 39	54 22	53 06	51 52	50 38	49 26	48 14	47 05	45 56	44 48	43 42		40
	50	58 10	56 54	55 38	54 24	53 11	51 58	50 47	49 37	48 27	47 18	46 10	45 04		50
3	00	59 16	58 01	56 48	55 34	54 22	53 10	52 00	50 50	49 41	48 33	47 26	46 20	3	00
	10	60 14	59 02	57 49	56 38	55 26	54 16	53 07	51 58	50 49	49 42	48 35	47 29		10
	20	61 07	59 56	58 44	57 34	56 23	55 15	54 06	52 58	51 50	50 43	49 37	48 32		20
	30	61 53	60 43	59 34	58 25	57 15	56 07	55 00	53 52	52 46	51 39	50 33	49 28		30
	40	62 35	61 26	60 18	59 10	58 02	56 54	55 47	54 40	53 35	52 29	51 24	50 20		40
	50	63 11	62 03	60 56	59 49	58 42	57 35	56 30	55 24	54 19	53 14	52 09	51 06		50
4	00	63 44	62 37	61 31	60 25	59 19	58 13	57 07	56 02	54 58	53 54	52 50	51 46	4	00
	10	64 12	63 06	62 01	60 56	59 51	58 46	57 41	56 37	55 34	54 30	53 26	52 23		10
	20	64 37	63 31	62 28	61 23	60 19	59 15	58 11	57 08	56 04	55 00	53 57	52 56		20
	30	64 58	63 54	62 50	61 47	60 43	59 40	58 36	57 34	56 31	55 28	54 26	53 24		30
	40	65 15	64 12	63 10	62 06	61 04	60 01	58 59	57 57	56 54	55 52	54 50	53 48		40
	50	65 31	64 28	63 25	62 23	61 22	60 19	59 17	58 16	57 13	56 12	55 10	54 09		50
5	00	65 43	64 40	63 39	62 37	61 36	60 34	59 32	58 31	57 29	56 28	55 28	54 26	5	00
	10	65 52	64 51	63 49	62 48	61 47	60 46	59 45	58 44	57 43	56 41	55 41	54 39		10
	20	65 59	64 58	63 57	62 56	61 55	60 55	59 54	58 53	57 52	56 52	55 51	54 51		20
	30	66 03	65 02	64 02	63 01	62 00	61 00	60 00	58 59	57 59	56 59	55 58	54 58		30
	40	66 04	65 04	64 04	63 03	62 03	61 03	60 03	59 03	58 03	57 03	56 02	55 02		40
	50	66 04	65 03	64 04	63 04	62 03	61 04	60 03	59 03	58 04	57 03	56 03	55 03		50
6	00	66 01	65 01	64 00	63 01	62 00	61 01	60 01	59 01	58 01	57 01	56 01	55 01	6	00
	10	65 55	64 56	63 56	62 55	61 55	60 56	59 55	58 56	57 56	56 56	55 56	54 56		10
	20	65 48	64 47	63 47	62 47	61 47	60 47	59 46	58 47	57 47	56 48	55 48	54 48		20
	30	65 36	64 36	63 36	62 36	61 36	60 36	59 36	58 36	57 36	56 37	55 36	54 36		30
	40	65 23	64 23	63 23	62 23	61 23	60 23	59 22	58 22	57 22	56 22	55 22	54 22		40
	50	65 08	64 07	63 06	62 07	61 06	60 06	59 06	58 05	57 05	56 04	55 04	54 04		50
7	00	64 49	63 48	62 48	61 47	60 46	59 46	58 45	57 45	56 44	55 44	54 44	53 43	7	00
	10	64 28	63 27	62 25	61 24	60 25	59 23	58 22	57 22	56 21	55 20	54 19	53 19		10
	20	64 04	63 03	62 01	60 59	59 57	58 56	57 55	56 54	55 53	54 53	53 52	52 52		20
	30	63 37	62 35	61 32	60 30	59 28	58 26	57 25	56 24	55 23	54 22	53 20	52 20		30
	40	63 05	62 02	61 01	59 58	58 56	57 54	56 51	55 50	54 48	53 47	52 45	51 45		40
	50	62 32	61 28	60 25	59 22	58 19	57 16	56 14	55 12	54 09	53 08	52 07	51 06		50
8	00	61 54	60 50	59 46	58 42	57 38	56 34	55 32	54 29	53 27	52 26	51 23	50 22	8	00
	10	61 12	60 07	59 02	57 57	56 53	55 49	54 46	53 43	52 40	51 38	50 36	49 34		10
	20	60 25	59 19	58 13	57 08	56 03	54 59	53 55	52 51	51 48	50 46	49 43	48 41		20
	30	59 33	58 26	57 20	56 14	55 08	54 03	52 59	51 55	50 52	49 49	48 46	47 44		30
	40	58 37	57 28	56 22	55 15	54 08	53 02	51 57	50 53	49 49	48 47	47 43	46 41		40
	50	57 33	56 25	55 17	54 09	53 02	51 56	50 50	49 46	48 41	47 36	46 35	45 33		50
9	00	56 25	55 15	54 05	52 57	51 49	50 42	49 36	48 31	47 26	46 23	45 20	44 18	9	00
	10	55 08	53 56	52 46	51 38	50 30	49 22	48 16	47 10	46 06	45 02	43 59	42 58		10
	20	53 43	52 32	51 20	50 11	49 02	47 55	46 48	45 42	44 38	43 35	42 32	41 30		20
	30	52 10	50 57	49 45	48 36	47 26	46 18	45 12	44 06	43 02	41 59	40 56	39 56		30
	40	50 27	49 14	48 01	46 51	45 41	44 33	43 27	42 22	41 17	40 15	39 13	38 13		40
	50	48 33	47 19	46 07	44 55	43 46	42 39	41 32	40 28	39 24	38 23	37 22	36 23		50
10	00	46 28	45 13	44 01	42 50	41 41	40 34	39 28	38 25	37 22	36 21	35 23	34 25	10	00
	10	44 07	42 54	41 41	40 31	39 23	38 17	37 13	36 11	35 10	34 11	33 13	32 17		10
	20	41 34	40 21	39 09	38 01	36 54	35 50	34 46	33 46	32 47	31 51	30 54	30 01		20
	30	38 43	37 32	36 22	35 15	34 11	33 08	32 08	31 10	30 14	29 20	28 27	27 35		30
	40	35 35	34 27	33 19	32 16	31 13	30 14	29 17	28 22	27 29	26 38	25 48	25 02		40
	50	32 09	31 04	30 01	29 00	28 02	27 07	26 14	25 23	24 34	23 47	23 02	22 18		50
11	00	28 23	27 23	26 24	25 29	24 37	23 46	22 58	22 12	21 28	20 45	20 05	19 26	11	00
	10	24 18	23 24	22 32	21 44	20 56	20 13	19 30	18 50	18 11	17 35	17 00	16 26		10
	20	19 55	19 08	18 25	17 43	17 04	16 27	15 51	15 17	14 46	14 16	13 46	13 18		20
	30	15 14	14 37	14 02	13 30	13 00	12 30	12 03	11 32	11 12	10 49	10 26	10 04		30
	40	10 18	9 52	9 29	9 06	8 45	8 26	8 06	7 49	7 31	7 16	7 01	6 46		40
	50	5 11	4 59	4 47	4 35	4 25	4 14	4 05	3 55	3 47	3 39	3 32	3 24		50
	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		00
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 2°.				DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 2°.			
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.			
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	3 36	3 28	3 21	3 14	3 07	3 00	2 53	2 47	2 41	2 35	2 30	2 24		10		
	20	7 11	6 55	6 40	6 26	6 11	5 58	5 45	5 33	5 21	5 10	4 59	4 48		20		
	30	10 41	10 18	9 55	9 34	9 14	8 53	8 34	8 17	7 59	7 43	7 26	7 11		30		
	40	14 06	13 35	13 06	12 38	12 11	11 45	11 21	10 57	10 34	10 12	9 51	9 30		40		
	50	17 22	16 45	16 10	15 36	15 03	14 33	14 02	13 33	13 06	12 38	12 12	11 47		50		
1	00	20 30	19 47	19 06	18 27	17 50	17 13	16 38	16 04	15 32	15 00	14 30	14 00	1	00		
	10	23 28	22 40	21 55	21 11	20 29	19 48	19 08	18 30	17 53	17 18	16 43	16 09		10		
	20	26 16	25 24	24 34	23 47	23 01	22 15	21 32	20 50	20 09	19 29	18 51	18 13		20		
	30	28 53	27 58	27 04	26 13	25 23	24 35	23 48	23 02	22 18	21 36	20 54	20 13		30		
	40	31 20	30 22	29 25	28 31	27 39	26 47	25 57	25 08	24 22	23 35	22 51	22 07		40		
	50	33 35	32 35	31 37	30 40	29 46	28 52	27 59	27 08	26 18	25 30	24 42	23 55		50		
2	00	35 42	34 40	33 40	32 42	31 45	30 49	29 54	29 01	28 08	27 17	26 28	25 39	2	00		
	10	37 39	36 35	35 34	34 35	33 36	32 38	31 41	30 46	29 52	28 59	28 07	27 17		10		
	20	39 26	38 22	37 20	36 19	35 18	34 20	33 21	32 25	31 29	30 34	29 41	28 48		20		
	30	41 05	40 01	38 57	37 54	36 54	35 54	34 55	33 57	33 00	32 04	31 09	30 15		30		
	40	42 35	41 30	40 26	39 24	38 23	37 22	36 22	35 23	34 24	33 28	32 32	31 36		40		
	50	43 59	42 53	41 49	40 46	39 44	38 42	37 42	36 42	35 43	34 45	33 48	32 52		50		
3	00	45 14	44 09	43 05	42 01	41 00	39 57	38 56	37 56	36 56	35 57	34 59	34 02	3	00		
	10	46 23	45 19	44 14	43 11	42 09	41 06	40 05	39 05	38 04	37 04	36 06	35 08		10		
	20	47 26	46 22	45 17	44 14	43 12	42 09	41 07	40 07	39 06	38 06	37 06	36 08		20		
	30	48 23	47 18	46 15	45 12	44 09	43 07	42 05	41 04	40 03	39 03	38 03	37 04		30		
	40	49 15	48 10	47 07	46 04	45 01	43 59	42 58	41 56	40 56	39 54	38 54	37 55		40		
	50	50 01	48 57	47 54	46 51	45 49	44 46	43 45	42 44	41 42	40 42	39 41	38 42		50		
4	00	50 43	49 40	48 36	47 34	46 32	45 30	44 27	43 26	42 25	41 24	40 24	39 24	4	00		
	10	51 20	50 16	49 14	48 12	47 10	46 08	45 06	44 06	43 04	42 03	41 03	40 03		10		
	20	51 53	50 50	49 48	48 46	47 45	46 42	45 41	44 40	43 38	42 38	41 37	40 37		20		
	30	52 21	51 19	50 17	49 15	48 14	47 12	46 11	45 10	44 09	43 08	42 08	41 07		30		
	40	52 47	51 44	50 42	49 41	48 40	47 38	46 37	45 36	44 36	43 35	42 34	41 34		40		
	50	53 07	52 05	51 05	50 03	49 02	48 01	47 00	46 00	44 59	43 57	42 57	41 57		50		
5	00	53 25	52 23	51 22	50 22	49 21	48 20	47 19	46 19	45 18	44 17	43 17	42 17	5	00		
	10	53 39	52 38	51 37	50 37	49 36	48 35	47 34	46 34	45 33	44 33	43 32	42 32		10		
	20	53 50	52 49	51 48	50 48	49 48	48 47	47 46	46 46	45 46	44 45	43 45	42 45		20		
	30	53 58	52 57	51 57	50 56	49 56	48 55	47 55	46 55	45 55	44 54	43 54	42 54		30		
	40	54 03	53 01	52 01	51 01	50 01	49 00	48 00	47 00	46 00	45 00	44 00	43 00		40		
	50	54 03	53 03	52 02	51 03	50 03	49 02	48 03	47 03	46 02	45 02	44 02	43 02		50		
6	00	54 01	53 01	52 01	51 01	50 02	49 01	48 01	47 01	46 01	45 01	44 01	43 01	6	00		
	10	53 56	52 56	51 56	50 56	49 57	48 56	47 56	46 56	45 57	44 57	43 57	42 57		10		
	20	53 48	52 48	51 48	50 48	49 49	48 48	47 48	46 48	45 49	44 49	43 49	42 49		20		
	30	53 37	52 37	51 37	50 37	49 38	48 37	47 37	46 38	45 38	44 38	43 39	42 39		30		
	40	53 22	52 22	51 22	50 23	49 24	48 23	47 23	46 23	45 24	44 25	43 25	42 25		40		
	50	53 05	52 04	51 05	50 05	49 05	48 05	47 05	46 05	45 07	44 07	43 08	42 08		50		
7	00	52 44	51 44	50 43	49 44	48 44	47 44	46 45	45 45	44 46	43 46	42 47	41 48	7	00		
	10	52 20	51 19	50 19	49 19	48 20	47 20	46 20	45 20	44 21	43 22	42 23	41 23		10		
	20	51 51	50 51	49 51	48 51	47 51	46 51	45 52	44 52	43 53	42 54	41 55	40 56		20		
	30	51 20	50 19	49 19	48 20	47 19	46 19	45 20	44 21	43 22	42 23	41 24	40 25		30		
	40	50 44	49 44	48 43	47 43	46 44	45 44	44 44	43 45	42 46	41 47	40 48	39 50		40		
	50	50 05	49 05	48 04	47 04	46 04	45 04	44 05	43 06	42 07	41 08	40 10	39 12		50		
8	00	49 21	48 20	47 20	46 20	45 20	44 20	43 21	42 22	41 24	40 25	39 27	38 29	8	00		
	10	48 33	47 32	46 31	45 32	44 32	43 32	42 33	41 35	40 37	39 38	38 41	37 43		10		
	20	47 40	46 39	45 39	44 39	43 40	42 40	41 41	40 43	39 45	38 47	37 50	36 53		20		
	30	46 43	45 42	44 41	43 42	42 43	41 43	40 44	39 47	38 49	37 53	36 55	35 59		30		
	40	45 40	44 39	43 38	42 39	41 40	40 41	39 42	38 46	37 49	36 52	35 55	35 00		40		
	50	44 32	43 31	42 30	41 31	40 33	39 34	38 37	37 40	36 43	35 48	34 52	33 57		50		
9	00	43 17	42 16	41 17	40 18	39 20	38 21	37 25	36 29	35 32	34 37	33 44	32 49	9	00		
	10	41 57	40 57	39 57	38 59	38 00	37 03	36 07	35 12	34 17	33 23	32 30	31 37		10		
	20	40 30	39 30	38 31	37 33	36 37	35 40	34 45	33 51	32 57	32 04	31 12	30 20		20		
	30	38 55	37 56	36 59	36 02	35 06	34 10	33 17	32 24	31 31	30 39	29 48	28 59		30		
	40	37 14	36 16	35 19	34 24	33 30	32 35	31 42	30 51	30 00	29 10	28 20	27 32		40		
	50	35 25	34 28	33 32	32 39	31 46	30 53	30 02	29 12	28 23	27 34	26 47	26 01		50		
10	00	33 29	32 33	31 39	30 47	29 56	29 05	28 16	27 28	26 41	25 54	25 09	24 24	10	00		
	10	31 22	30 29	29 38	28 48	27 58	27 10	26 23	25 37	24 53	24 09	23 25	22 44		10		
	20	29 10	28 18	27 28	26 41	25 55	25 08	24 24	23 41	22 59	22 17	21 37	20 57		20		
	30	26 47	25 59	25 12	24 28	23 44	23 01	22 19	21 39	20 59	20 21	19 44	19 07		30		
	40	24 16	23 31	22 48	22 07	21 26	20 46	20 09	19 32	18 55	18 20	17 46	17 13		40		
	50	21 37	20 56	20 16	19 39	19 02	18 26	17 52	17 19	16 46	16 14	15 43	15 14		50		
11	00	18 49	18 13	17 37	17 04	16 31	16 00	15 29	15 01	14 32	14 04	13 37	13 11	11	00		
	10	15 54	15 22	14 52	14 24	13 56	13 29	13 03	12 37	12 14	11 50	11 27	11 05		10		
	20	12 52	12 26	12 01	11 38	11 15	10 53	10 32	10 11	9 52	9 32	9 14	8 56		20		
	30	9 44	9 24	9 06	8 48	8 30	8 13	7 57	7 42	7 26	7 12	6 58	6 43		30		
	40	6 33	6 19	6 06	5 54	5 42	5 30	5 20	5 09	4 59	4 49	4 39	4 30		40		
	50	3 17	3 10	3 03	2 58	2 52	2 46	2 40	2 35	2 30	2 25	2 20	2 15		50		
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00		

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 2°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 2°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	2 20	2 15	2 10	2 05	2 00	1 56	1 52	1 47	1 43	1 39	1 35	1 32		10
	20	4 38	4 29	4 19	4 09	4 01	3 51	3 44	3 35	3 26	3 19	3 11	3 03		20
	30	6 55	6 40	6 26	6 13	5 59	5 46	5 33	5 21	5 10	4 58	4 47	4 35		30
	40	9 10	8 51	8 33	8 15	7 56	7 39	7 23	7 07	6 50	6 35	6 20	6 05		40
	50	11 22	10 59	10 36	10 14	9 52	9 31	9 09	8 49	8 30	8 11	7 52	7 34		50
1	00	13 32	13 04	12 36	12 11	11 45	11 19	10 55	10 31	10 08	9 45	9 23	9 01	1	00
	10	15 36	15 05	14 34	14 04	13 35	13 06	12 37	12 10	11 44	11 18	10 52	10 27		10
	20	17 37	17 01	16 27	15 54	15 21	14 49	14 17	13 47	13 17	12 48	12 19	11 51		20
	30	19 33	18 54	18 17	17 40	17 04	16 28	15 54	15 21	14 47	14 15	13 43	13 12		30
	40	21 24	20 42	20 02	19 22	18 43	18 05	17 28	16 53	16 15	15 40	15 06	14 31		40
	50	23 10	22 26	21 42	21 00	20 18	19 37	18 57	18 18	17 39	17 02	16 24	15 47		50
2	00	24 51	24 04	23 18	22 34	21 49	21 06	20 24	19 42	19 00	18 20	17 40	17 01	2	00
	10	26 27	25 35	24 49	24 02	23 16	22 30	21 46	21 02	20 18	19 36	18 54	18 12		10
	20	27 57	27 06	26 16	25 27	24 39	23 50	23 04	22 17	21 33	20 47	20 04	19 20		20
	30	29 22	28 29	27 38	26 47	25 57	25 07	24 19	23 30	22 43	21 57	21 10	20 24		30
	40	30 41	29 47	28 55	28 02	27 10	26 19	25 29	24 39	23 51	23 02	22 14	21 27		40
	50	31 56	31 00	30 07	29 12	28 20	27 27	26 35	25 44	24 53	24 04	23 14	22 25		50
3	00	33 05	32 09	31 14	30 19	29 25	28 30	27 38	26 46	25 53	25 02	24 11	23 20	3	00
	10	34 10	33 13	32 17	31 20	30 25	29 31	28 36	27 43	26 50	25 56	25 04	24 12		10
	20	35 10	34 12	33 15	32 18	31 22	30 26	29 31	28 36	27 42	26 48	25 54	25 02		20
	30	36 05	35 07	34 09	33 11	32 15	31 18	30 21	29 26	28 31	27 36	26 41	25 47		30
	40	36 55	35 57	34 59	34 01	33 03	32 05	31 09	30 12	29 16	28 20	27 24	26 30		40
	50	37 42	36 43	35 44	34 46	33 48	32 49	31 52	30 55	29 58	29 02	28 05	27 09		50
4	00	38 24	37 25	36 26	35 27	34 28	33 30	32 31	31 33	30 37	29 39	28 42	27 45	4	00
	10	39 03	38 03	37 04	36 04	35 06	34 06	33 08	32 09	31 12	30 13	29 15	28 18		10
	20	39 37	38 37	37 37	36 37	35 38	34 39	33 40	32 41	31 43	30 44	29 46	28 48		20
	30	40 07	39 07	38 07	37 08	36 08	35 08	34 09	33 09	32 11	31 12	30 13	29 15		30
	40	40 34	39 33	38 34	37 33	36 34	35 34	34 35	33 35	32 36	31 37	30 37	29 38		40
	50	40 57	39 56	38 56	37 57	36 56	35 56	34 57	33 57	32 57	31 58	30 58	29 59		50
5	00	41 15	40 15	39 15	38 15	37 16	36 15	35 16	34 16	33 15	32 17	31 17	30 17	5	00
	10	41 32	40 31	39 31	38 31	37 31	36 31	35 32	34 31	33 32	32 31	31 31	30 31		10
	20	41 44	40 44	39 44	38 44	37 43	36 43	35 43	34 43	33 44	32 44	31 43	30 43		20
	30	41 53	40 53	39 54	38 53	37 53	36 52	35 53	34 52	33 52	32 52	31 52	30 52		30
	40	41 59	40 59	39 59	38 59	37 59	36 58	35 58	34 58	33 58	32 58	31 58	30 58		40
	50	42 02	41 02	40 02	39 02	38 02	37 02	36 02	35 02	34 01	33 01	32 01	31 02		50
6	00	42 01	41 01	40 01	39 01	38 02	37 01	36 01	35 01	34 01	33 01	32 01	31 00	6	00
	10	41 58	40 58	39 58	38 58	37 58	36 58	35 58	34 58	33 58	32 58	31 57	30 58		10
	20	41 49	40 49	39 49	38 49	37 49	36 49	35 49	34 49	33 49	32 49	31 48	30 49		20
	30	41 39	40 39	39 39	38 39	37 39	36 39	35 39	34 39	33 39	32 39	31 38	30 39		30
	40	41 26	40 26	39 27	38 27	37 28	36 28	35 29	34 30	33 30	32 31	31 31	30 32		40
	50	41 09	40 10	39 11	38 11	37 12	36 12	35 13	34 14	33 15	32 16	31 16	30 18		50
7	00	40 49	39 49	38 50	37 51	36 52	35 53	34 55	33 55	32 57	31 58	30 59	30 00	7	00
	10	40 25	39 25	38 27	37 28	36 30	35 31	34 32	33 33	32 35	31 37	30 38	29 40		10
	20	39 57	38 58	37 59	37 02	36 03	35 05	34 07	33 09	32 11	31 12	30 13	29 17		20
	30	39 26	38 28	37 30	36 32	35 34	34 36	33 38	32 41	31 43	30 46	29 48	28 51		30
	40	38 52	37 54	36 56	35 58	35 01	34 03	33 06	32 09	31 12	30 16	29 19	28 22		40
	50	38 14	37 17	36 19	35 22	34 25	33 27	32 31	31 35	30 38	29 42	28 46	27 50		50
8	00	37 31	36 35	35 38	34 40	33 44	32 48	31 52	30 56	30 01	29 04	28 10	27 15	8	00
	10	36 47	35 50	34 53	33 57	33 02	32 05	31 11	30 15	29 20	28 26	27 31	26 38		10
	20	35 57	35 00	34 05	33 09	32 14	31 19	30 24	29 31	28 37	27 44	26 49	25 57		20
	30	35 03	34 08	33 12	32 18	31 23	30 29	29 37	28 43	27 50	26 57	26 05	25 13		30
	40	34 05	33 11	32 16	31 22	30 30	29 36	28 44	27 51	27 00	26 08	25 17	24 26		40
	50	33 02	32 09	31 15	30 23	29 31	28 39	27 48	26 56	26 06	25 16	24 26	23 36		50
9	00	31 56	31 03	30 11	29 19	28 28	27 38	26 48	25 57	25 09	24 20	23 32	22 44	9	00
	10	30 45	29 53	29 02	28 12	27 23	26 34	25 44	24 56	24 08	23 22	22 34	21 48		10
	20	29 30	28 39	27 50	27 01	26 13	25 25	24 37	23 51	23 05	22 19	21 34	20 49		20
	30	28 09	27 20	26 33	25 46	24 59	24 13	23 27	22 42	21 58	21 14	20 30	19 48		30
	40	26 45	25 57	25 11	24 25	23 41	22 57	22 13	21 30	20 47	20 06	19 24	18 44		40
	50	25 15	24 30	23 46	23 03	22 20	21 37	20 56	20 15	19 35	18 55	18 15	17 37		50
10	00	23 41	22 58	22 16	21 34	20 54	20 14	19 35	18 56	18 18	17 41	17 03	16 27	10	00
	10	22 02	21 22	20 42	20 03	19 25	18 48	18 10	17 34	16 59	16 23	15 49	15 15		10
	20	20 19	19 41	19 04	18 28	17 53	17 17	16 43	16 10	15 36	15 03	14 32	14 00		20
	30	18 32	17 57	17 22	16 49	16 17	15 44	15 13	14 42	14 11	13 42	13 12	12 43		30
	40	16 40	16 08	15 37	15 07	14 37	14 08	13 37	13 11	12 43	12 16	11 50	11 24		40
	50	14 44	14 16	13 48	13 21	12 55	12 29	12 03	11 38	11 14	10 50	10 26	10 03		50
11	00	12 45	12 20	11 55	11 33	11 10	10 47	10 25	10 03	9 41	9 20	9 00	8 40	11	00
	10	10 43	10 22	10 01	9 41	9 22	9 02	8 44	8 25	8 08	7 50	7 33	7 16		10
	20	8 38	8 20	8 04	7 48	7 32	7 16	7 02	6 46	6 32	6 18	6 04	5 51		20
	30	6 30	6 17	6 05	5 53	5 40	5 29	5 18	5 06	4 55	4 44	4 34	4 23		30
	40	4 21	4 13	4 04	3 55	3 48	3 40	3 32	3 25	3 17	3 10	3 03	2 56		40
	50	2 11	2 07	2 02	1 54	1 50	1 51	1 47	1 43	1 39	1 35	1 31	1 28		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or west of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 2°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 2°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.	
h.	m.	0	1	2	3	4	5	6	7	8	9	10	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	1 29	1 25	1 21	1 18	1 14	1 11	1 08	1 05	1 02	0 59	0 55		10
	20	2 57	2 49	2 42	2 35	2 29	2 22	2 15	2 09	2 02	1 57	1 51		20
	30	4 24	4 14	4 03	3 53	3 43	3 32	3 23	3 13	3 04	2 54	2 45		30
	40	5 51	5 37	5 22	5 09	4 56	4 43	4 30	4 17	4 05	3 52	3 40		40
	50	7 17	6 58	6 41	6 25	6 08	5 52	5 35	5 20	5 04	4 49	4 34		50
1	00	8 40	8 20	7 59	7 38	7 19	7 00	6 40	6 22	6 03	5 45	5 27	1	00
	10	10 02	9 38	9 15	8 52	8 29	8 07	7 44	7 23	7 01	6 40	6 19		10
	20	11 23	10 57	10 30	10 04	9 38	9 12	8 47	8 23	7 58	7 35	7 12		20
	30	12 42	12 12	11 43	11 13	10 45	10 17	9 49	9 21	8 54	8 28	8 01		30
	40	13 58	13 25	12 52	12 21	11 50	11 19	10 49	10 19	9 50	9 20	8 51		40
	50	15 12	14 37	14 01	13 28	12 54	12 20	11 47	11 14	10 42	10 11	9 40		50
2	00	16 23	15 46	15 07	14 31	13 55	13 19	12 44	12 09	11 34	11 00	10 26	2	00
	10	17 32	17 51	16 11	15 32	14 55	14 16	13 38	13 01	12 24	11 48	11 12		10
	20	18 37	17 54	17 13	16 32	15 51	15 10	14 30	13 52	13 12	12 33	11 55		20
	30	19 40	18 56	18 12	17 28	16 46	16 03	15 21	14 39	13 59	13 18	12 37		30
	40	20 40	19 54	19 08	18 23	17 39	16 54	16 10	15 27	14 43	14 00	13 18		40
	50	21 37	20 49	20 01	19 14	18 28	17 41	16 56	16 11	15 26	14 41	13 57		50
3	00	22 31	21 41	20 52	20 03	19 15	18 28	17 40	16 53	16 06	15 20	14 34	3	00
	10	23 21	22 31	21 40	20 49	20 01	19 11	18 22	17 33	16 45	15 57	15 09		10
	20	24 09	23 17	22 24	21 33	20 43	19 51	19 01	18 12	17 22	16 31	15 42		20
	30	24 54	24 00	23 07	22 14	21 22	20 30	19 38	18 47	17 56	17 05	16 14		30
	40	25 35	24 41	23 46	22 53	22 00	21 06	20 13	19 21	18 28	17 35	16 44		40
	50	26 14	25 18	24 22	23 28	22 34	21 39	20 46	19 51	18 58	18 04	17 12		50
4	00	26 49	25 53	24 57	24 00	23 05	22 10	21 15	20 21	19 25	18 31	17 37	4	00
	10	27 21	26 24	25 27	24 30	23 35	22 38	21 42	20 47	19 51	18 55	18 00		10
	20	27 50	26 53	25 55	24 58	24 01	23 04	22 07	21 10	20 14	19 17	18 22		20
	30	28 16	27 19	26 20	25 22	24 25	23 27	22 29	21 32	20 36	19 38	18 41		30
	40	28 40	27 41	26 42	25 44	24 46	23 47	22 49	21 52	20 54	19 55	18 58		40
	50	29 00	28 02	27 02	26 03	25 05	24 06	23 07	22 08	21 10	20 11	19 13		50
5	00	29 17	28 18	27 19	26 20	25 21	24 21	23 21	22 23	21 25	20 25	19 26	5	00
	10	29 32	28 32	27 33	26 33	25 34	24 34	23 35	22 36	21 36	20 37	19 38		10
	20	29 44	28 43	27 43	26 44	25 44	24 45	23 45	22 45	21 46	20 46	19 46		20
	30	29 52	28 52	27 52	26 52	25 53	24 52	23 53	22 52	21 53	20 53	19 53		30
	40	29 58	28 58	27 58	26 57	25 58	24 57	23 57	22 57	21 57	20 58	19 58		40
	50	30 01	29 01	28 00	27 00	26 01	25 00	24 00	23 00	22 00	21 00	20 00		50
6	00	30 01	29 01	28 00	27 00	26 01	25 01	24 01	23 01	22 01	21 01	20 01	6	00
	10	29 58	28 58	27 59	26 58	25 59	24 59	23 59	22 59	21 59	20 59	20 00		10
	20	29 53	28 53	27 53	26 53	25 54	24 54	23 54	22 55	21 54	20 55	19 56		20
	30	29 44	28 45	27 45	26 45	25 47	24 47	23 47	22 47	21 48	20 49	19 50		30
	40	29 33	28 34	27 35	26 35	25 36	24 37	23 38	22 39	21 40	20 40	19 41		40
	50	29 19	28 20	27 21	26 22	25 24	24 25	23 26	22 28	21 29	20 30	19 32		50
7	00	29 02	28 04	27 05	26 07	25 09	24 10	23 11	22 13	21 15	20 17	19 20	7	00
	10	28 43	27 44	26 45	25 48	24 51	23 54	22 56	21 58	21 01	20 02	19 06		10
	20	28 20	27 22	26 25	25 28	24 31	23 34	22 36	21 40	20 42	19 45	18 50		20
	30	27 55	26 58	26 01	25 05	24 09	23 12	22 16	21 19	20 23	19 27	18 31		30
	40	27 26	26 30	25 34	24 38	23 43	22 47	21 52	20 56	20 01	19 05	18 11		40
	50	26 55	26 00	25 05	24 09	23 15	22 20	21 25	20 31	19 37	18 42	17 49		50
8	00	26 21	25 27	24 32	23 38	22 45	21 51	20 57	20 04	19 10	18 17	17 25	8	00
	10	25 45	24 50	23 57	23 05	22 12	21 19	20 27	19 34	18 42	17 50	16 58		10
	20	25 07	24 12	23 19	22 27	21 36	20 45	19 53	19 02	18 12	17 21	16 31		20
	30	24 22	23 30	22 39	21 48	20 58	20 08	19 17	18 29	17 39	16 49	16 00		30
	40	23 36	22 46	21 56	21 06	20 18	19 29	18 40	17 52	17 04	16 15	15 28		40
	50	22 47	21 59	21 10	20 23	19 35	18 48	18 00	17 14	16 26	15 40	14 55		50
9	00	21 56	21 09	20 23	19 35	18 50	18 04	17 18	16 33	15 48	15 03	14 19	9	00
	10	21 02	20 17	19 31	18 47	18 02	17 18	16 35	15 50	15 07	14 25	13 42		10
	20	20 05	19 22	18 38	17 55	17 13	16 30	15 48	15 07	14 26	13 44	13 04		20
	30	19 06	18 24	17 42	17 01	16 21	15 39	14 59	14 20	13 41	13 01	12 23		30
	40	18 03	17 23	16 44	16 04	15 27	14 47	14 09	13 32	12 55	12 17	11 41		40
	50	16 58	16 21	15 43	15 06	14 30	13 54	13 18	12 42	12 07	11 32	10 57		50
10	00	15 51	15 15	14 40	14 05	13 31	12 57	12 24	11 50	11 18	10 45	10 12	10	00
	10	14 41	14 07	13 35	13 02	12 31	11 59	11 28	10 57	10 27	9 56	9 27		10
	20	13 29	12 58	12 28	11 58	11 29	10 59	10 31	10 03	9 35	9 07	8 39		20
	30	12 15	11 47	11 20	10 52	10 25	9 59	9 32	9 07	8 41	8 15	7 50		30
	40	10 58	10 33	10 08	9 44	9 20	8 56	8 32	8 10	7 46	7 23	7 01		40
	50	9 40	9 18	8 56	8 34	8 13	7 52	7 31	7 11	6 50	6 31	6 11		50
11	00	8 21	8 01	7 42	7 23	7 05	6 47	6 28	6 11	5 54	5 36	5 19	11	00
	10	6 59	6 43	6 27	6 12	5 56	5 40	5 26	5 11	4 56	4 41	4 27		10
	20	5 37	5 24	5 11	4 58	4 45	4 34	4 21	4 09	3 57	3 46	3 34		20
	30	4 14	4 04	3 54	3 44	3 35	3 26	3 17	3 08	2 58	2 50	2 41		30
	40	2 49	2 43	2 36	2 30	2 24	2 18	2 11	2 05	1 59	1 53	1 47		40
	50	1 25	1 22	1 19	1 15	1 12	1 09	1 06	1 03	1 00	0 57	0 54		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 3°.			DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 3°.		
Hour Angle.			24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.				
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.	0		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	00		
0	10	6 20	6 02	5 44	5 27	5 12	4 59	4 45	4 33	4 22	4 11	4 01	3 52	3 43	0	10	10		
0	20	12 37	11 54	11 20	10 48	10 19	9 51	9 26	9 03	8 40	8 19	7 59	7 40	7 30	0	20	20		
0	30	18 24	17 31	16 41	15 56	15 14	14 35	13 58	13 23	12 51	12 20	11 52	11 24	11 14	0	30	30		
0	40	23 51	22 45	21 44	20 47	19 55	19 05	18 18	17 34	16 53	16 13	15 36	15 01	14 51	0	40	40		
0	50	28 49	27 34	26 24	25 18	24 17	23 19	22 23	21 31	20 42	19 55	19 10	18 29	18 19	0	50	50		
1	00	33 18	31 56	30 39	29 27	28 19	27 13	26 12	25 13	24 18	23 24	22 34	21 45	21 35	1	00	00		
1	10	37 18	35 53	34 31	33 14	32 00	30 50	29 44	28 40	27 39	26 41	25 45	24 51	24 41	1	10	10		
1	20	40 51	39 24	37 59	36 39	35 22	34 09	32 58	31 50	30 45	29 42	28 43	27 45	27 35	1	20	20		
1	30	44 00	42 32	41 05	39 43	38 25	37 09	35 55	34 45	33 37	32 31	31 28	30 28	30 18	1	30	30		
1	40	46 47	45 18	43 52	42 30	41 10	39 52	38 37	37 25	36 15	35 07	34 01	32 58	32 48	1	40	40		
1	50	49 14	47 46	46 20	44 57	43 37	42 18	41 03	39 50	38 39	37 29	36 22	35 17	35 07	1	50	50		
2	00	51 24	49 57	48 32	47 10	45 50	44 32	43 15	42 02	40 50	39 39	38 31	37 25	37 15	2	00	00		
2	10	53 18	51 53	50 29	49 08	47 49	46 31	45 15	44 02	42 49	41 38	40 29	39 22	39 12	2	10	10		
2	20	54 59	53 36	52 15	50 54	49 36	48 19	47 03	45 49	44 37	43 26	42 17	41 09	40 99	2	20	20		
2	30	56 30	55 08	53 48	52 29	51 12	49 56	48 41	47 28	46 16	45 05	43 55	42 47	42 37	2	30	30		
2	40	57 49	56 29	55 11	53 54	52 38	51 23	50 09	48 56	47 45	46 34	45 25	44 17	44 07	2	40	40		
2	50	59 00	57 42	56 25	55 10	53 54	52 41	51 28	50 16	49 06	47 55	46 46	45 39	45 29	2	50	50		
3	00	60 02	58 46	57 32	56 17	55 04	53 51	52 39	51 28	50 18	49 09	48 00	46 53	46 43	3	00	00		
3	10	60 58	59 44	58 30	57 18	56 06	54 54	53 44	52 33	51 24	50 15	49 07	48 00	47 50	3	10	10		
3	20	61 47	60 35	59 22	58 11	57 01	55 50	54 41	53 31	52 23	51 15	50 08	49 01	48 51	3	20	20		
3	30	62 31	61 20	60 09	58 59	57 50	56 40	55 31	54 24	53 15	52 09	51 03	49 56	49 46	3	30	30		
3	40	63 09	61 59	60 50	59 41	58 33	57 25	56 17	55 10	54 03	52 57	51 51	50 45	50 35	3	40	40		
3	50	63 43	62 35	61 26	60 19	59 12	58 05	56 58	55 52	54 46	53 40	52 35	51 29	51 19	3	50	50		
4	00	64 13	63 05	61 59	60 52	59 45	58 40	57 34	56 28	55 23	54 18	53 13	52 09	51 99	4	00	00		
4	10	64 38	63 33	62 26	61 21	60 16	59 11	58 05	57 00	55 56	54 52	53 48	52 44	52 34	4	10	10		
4	20	65 00	63 56	62 50	61 46	60 41	59 37	58 32	57 29	56 24	55 21	54 17	53 14	53 04	4	20	20		
4	30	65 19	64 15	63 11	62 07	61 03	60 00	58 56	57 53	56 50	55 46	54 43	53 41	53 31	4	30	30		
4	40	65 35	64 31	63 27	62 25	61 22	60 19	59 16	58 13	57 11	56 08	55 06	54 04	53 54	4	40	40		
4	50	65 48	64 44	63 41	62 39	61 37	60 35	59 33	58 31	57 28	56 26	55 25	54 22	54 12	4	50	50		
5	00	65 58	64 55	63 53	62 51	61 49	60 47	59 46	58 44	57 43	56 40	55 39	54 38	54 28	5	00	00		
5	10	66 04	65 03	64 01	63 00	61 59	60 58	59 55	58 54	57 53	56 52	55 51	54 50	54 40	5	10	10		
5	20	66 09	65 08	64 07	63 06	62 05	61 04	60 03	59 02	58 02	57 00	55 59	54 59	54 49	5	20	20		
5	30	66 10	65 10	64 09	63 08	62 08	61 07	60 07	59 07	58 06	57 06	56 04	55 04	54 54	5	30	30		
5	40	66 11	65 09	64 09	63 09	62 09	61 08	60 08	59 08	58 08	57 07	56 07	55 06	54 56	5	40	40		
5	50	66 07	65 06	64 06	63 06	62 07	61 07	60 07	59 07	58 07	57 06	56 06	55 06	54 56	5	50	50		
6	00	66 02	65 01	64 02	63 02	62 03	61 02	60 02	59 02	58 02	57 02	56 02	55 02	54 52	6	00	00		
6	10	65 54	64 54	63 54	62 54	61 54	60 55	59 55	58 55	57 55	56 55	55 55	54 55	54 45	6	10	10		
6	20	65 44	64 44	63 44	62 44	61 44	60 45	59 44	58 45	57 45	56 45	55 45	54 46	54 36	6	20	20		
6	30	65 31	64 31	63 31	62 32	61 31	60 31	59 32	58 31	57 32	56 32	55 32	54 33	54 23	6	30	30		
6	40	65 16	64 16	63 16	62 16	61 16	60 15	59 15	58 16	57 16	56 16	55 16	54 16	54 06	6	40	40		
6	50	64 58	63 58	62 57	61 57	60 57	59 57	58 56	57 56	56 57	55 57	54 57	53 57	53 47	6	50	50		
7	00	64 38	63 37	62 36	61 35	60 35	59 35	58 35	57 35	56 35	55 34	54 34	53 35	53 25	7	00	00		
7	10	64 14	63 13	62 12	61 11	60 11	59 10	58 10	57 10	56 08	55 08	54 09	53 08	52 58	7	10	10		
7	20	63 47	62 46	61 45	60 44	59 43	58 42	57 40	56 40	55 40	54 39	53 39	52 39	52 29	7	20	20		
7	30	63 18	62 16	61 14	60 13	59 11	58 10	57 09	56 08	55 07	54 07	53 06	52 06	51 56	7	30	30		
7	40	62 45	61 43	60 40	59 38	58 36	57 34	56 33	55 32	54 31	53 30	52 29	51 29	51 19	7	40	40		
7	50	62 09	61 06	60 03	59 00	57 57	56 56	55 54	54 52	53 51	52 49	51 49	50 48	50 38	7	50	50		
8	00	61 28	60 24	59 21	58 18	57 15	56 12	55 10	54 07	53 06	52 04	51 04	50 03	49 53	8	00	00		
8	10	60 44	59 38	58 35	57 31	56 28	55 25	54 21	53 20	52 17	51 16	50 15	49 14	49 04	8	10	10		
8	20	59 55	58 49	57 44	56 39	55 36	54 32	53 29	52 26	51 24	50 21	49 20	48 19	48 09	8	20	20		
8	30	59 01	57 55	56 49	55 43	54 39	53 35	52 31	51 28	50 25	49 22	48 21	47 20	47 10	8	30	30		
8	40	58 01	56 54	55 48	54 42	53 36	52 32	51 27	50 24	49 21	48 19	47 17	46 17	46 07	8	40	40		
8	50	56 56	55 48	54 41	53 34	52 28	51 23	50 19	49 15	48 12	47 09	46 07	45 06	44 56	8	50	50		
9	00	55 45	54 36	53 27	52 20	51 14	50 08	49 03	47 59	46 56	45 53	44 51	43 51	43 41	9	00	00		
9	10	54 26	53 16	52 07	50 59	49 53	48 46	47 40	46 37	45 33	44 31	43 29	42 29	42 19	9	10	10		
9	20	52 59	51 48	50 39	49 30	48 23	47 17	46 11	45 07	44 04	43 02	42 01	41 01	40 51	9	20	20		
9	30	51 24	50 12	49 02	47 53	46 45	45 39	44 33	43 30	42 27	41 25	40 24	39 25	39 15	9	30	30		
9	40	49 38	48 26	47 16	46 07	44 59	43 53	42 48	41 44	40 42	39 41	38 40	37 42	37 32	9	40	40		
9	50	47 42	46 30	45 20	44 11	43 03	41 57	40 52	39 50	38 48	37 48	36 49	35 52	35 42	9	50	50		
10	00	45 35	44 23	43 12	42 04	40 57	39 52	38 48	37 46	36 46	35 47	34 49	33 53	33 43	10	00	00		
10	10	43 14	42 02	40 53	39 45	38 39	37 35	36 32	35 32	34 33	33 35	32 40	31 46	31 36	10	10	10		
10	20	40 40	39 28	38 20	37 14	36 09	35 07	34 07	33 08	32 11	31 16	30 23	29 31	29 21	10	20	20		
10	30	37 50	36 40	35 33	34 29	33 28	32 27	31 29	30 33	2									

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 3°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 3°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.													h.	m.
		0	1	2	3	4	5	6	7	8	9	10	11		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	3 41	3 34	3 25	3 18	3 11	3 03	2 57	2 49	2 44	2 38	2 33	2 27		10
	20	7 23	7 05	6 50	6 34	6 20	6 06	5 52	5 40	5 27	5 16	5 04	4 54		20
	30	10 58	10 33	10 09	9 47	9 26	9 05	8 46	8 26	8 08	7 51	7 34	7 18		30
	40	14 27	13 55	13 25	12 55	12 27	12 00	11 35	11 10	10 46	10 23	10 01	9 40		40
	50	17 48	17 09	16 32	15 56	15 23	14 51	14 19	13 49	13 20	12 52	12 25	11 59		50
1	00	20 50	20 14	19 32	18 51	18 11	17 34	16 57	16 22	15 49	15 16	14 45	14 14	1	00
	10	24 00	23 10	22 23	21 37	20 53	20 11	19 29	18 50	18 12	17 35	17 00	16 24		10
	20	26 49	25 56	25 05	24 15	23 26	22 40	21 55	21 11	20 29	19 48	19 08	18 32		20
	30	29 28	28 32	27 36	26 43	25 51	25 02	24 13	23 26	22 41	21 56	21 13	20 31		30
	40	31 56	30 57	29 59	29 02	28 08	27 15	26 23	25 33	24 45	23 57	23 11	22 27		40
	50	34 13	33 11	32 11	31 12	30 15	29 20	28 26	27 33	26 42	25 52	25 04	24 15		50
2	00	36 19	35 16	34 14	33 14	32 15	31 17	30 21	29 27	28 34	27 41	26 49	25 59	2	00
	10	38 15	37 11	36 07	35 06	34 05	33 07	32 09	31 12	30 17	29 23	28 29	27 37		10
	20	40 02	38 57	37 53	36 50	35 48	34 48	33 48	32 51	31 54	30 58	30 03	29 09		20
	30	41 41	40 35	39 30	38 27	37 24	36 22	35 22	34 23	33 25	32 27	31 31	30 36		30
	40	43 10	42 04	40 59	39 54	38 52	37 50	36 49	35 48	34 50	33 51	32 53	31 57		40
	50	44 31	43 25	42 20	41 16	40 12	39 09	38 08	37 07	36 07	35 08	34 09	33 12		50
3	00	45 46	44 39	43 34	42 30	41 26	40 24	39 21	38 20	37 19	36 19	35 20	34 23	3	00
	10	46 53	45 47	44 42	43 38	42 34	41 32	40 29	39 27	38 26	37 26	36 26	35 28		10
	20	47 55	46 50	45 45	44 40	43 36	42 34	41 31	40 29	39 27	38 27	37 27	36 27		20
	30	48 50	47 45	46 40	45 36	44 33	43 30	42 27	41 25	40 24	39 23	38 22	37 22		30
	40	49 39	48 35	47 32	46 27	45 23	44 21	43 18	42 16	41 14	40 13	39 12	38 12		40
	50	50 25	49 21	48 17	47 13	46 10	45 07	44 05	43 02	42 01	40 59	39 59	38 58		50
4	00	51 04	50 01	48 57	47 54	46 51	45 49	44 46	43 44	42 43	41 41	40 40	39 40	4	00
	10	51 40	50 37	49 33	48 31	47 28	46 26	45 24	44 21	43 20	42 19	41 18	40 17		10
	20	52 11	51 08	50 06	49 03	48 00	46 58	45 56	44 55	43 54	42 52	41 51	40 51		20
	30	52 38	51 35	50 33	49 31	48 29	47 27	46 25	45 23	44 22	43 21	42 20	41 20		30
	40	53 01	51 59	50 57	49 55	48 54	47 52	46 50	45 49	44 48	43 46	42 45	41 45		40
	50	53 21	52 18	51 17	50 15	49 14	48 13	47 11	46 10	45 09	44 08	43 07	42 06		50
5	00	53 36	52 35	51 34	50 32	49 31	48 30	47 29	46 28	45 28	44 26	43 25	42 24	5	00
	10	53 48	52 48	51 47	50 45	49 45	48 44	47 43	46 42	45 41	44 41	43 40	42 40		10
	20	53 58	52 57	51 57	50 55	49 55	48 55	47 53	46 53	45 53	44 52	43 51	42 50		20
	30	54 03	53 03	52 03	51 02	50 02	49 01	48 00	47 00	46 00	45 00	44 00	43 00		30
	40	54 06	53 06	52 06	51 06	50 05	49 05	48 05	47 04	46 04	45 04	44 03	43 03		40
	50	54 06	53 06	52 06	51 06	50 05	49 05	48 05	47 05	46 05	45 05	44 05	43 05		50
6	00	54 02	53 02	52 02	51 02	50 02	49 02	48 02	47 02	46 02	45 03	44 03	43 03	6	00
	10	53 56	52 56	51 56	50 56	49 56	48 56	47 56	46 56	45 56	44 57	43 57	42 57		10
	20	53 46	52 46	51 46	50 47	49 47	48 47	47 47	46 48	45 48	44 49	43 48	42 49		20
	30	53 33	52 33	51 34	50 34	49 34	48 34	47 35	46 35	45 35	44 36	43 37	42 37		30
	40	53 17	52 17	51 17	50 18	49 18	48 18	47 19	46 19	45 20	44 21	43 22	42 22		40
	50	52 57	51 58	50 58	49 58	48 59	47 59	46 59	45 59	44 59	43 59	42 59	41 59		50
7	00	52 35	51 35	50 36	49 36	48 36	47 36	46 37	45 38	44 39	43 40	42 40	41 42	7	00
	10	52 09	51 09	50 10	49 09	48 10	47 11	46 12	45 12	44 13	43 14	42 15	41 16		10
	20	51 39	50 39	49 40	48 40	47 40	46 41	45 42	44 43	43 44	42 45	41 46	40 48		20
	30	51 06	50 05	49 07	48 07	47 07	46 08	45 09	44 09	43 11	42 13	41 14	40 16		30
	40	50 29	49 28	48 29	47 30	46 31	45 31	44 32	43 33	42 35	41 36	40 38	39 40		40
	50	49 47	48 47	47 48	46 49	45 49	44 50	43 51	42 52	41 54	40 56	39 59	39 01		50
8	00	49 02	48 02	47 02	46 03	45 04	44 05	43 06	42 08	41 10	40 12	39 15	38 18	8	00
	10	48 13	47 13	46 13	45 13	44 14	43 15	42 17	41 20	40 22	39 24	38 27	37 30		10
	20	47 19	46 18	45 19	44 19	43 21	42 23	41 24	40 26	39 29	38 32	37 35	36 39		20
	30	46 20	45 20	44 20	43 21	42 22	41 24	40 26	39 29	38 32	37 36	36 40	35 45		30
	40	45 15	44 16	43 16	42 18	41 19	40 21	39 23	38 27	37 31	36 35	35 40	34 45		40
	50	44 06	43 06	42 07	41 09	40 11	39 13	38 16	37 20	36 25	35 29	34 35	33 41		50
9	00	42 50	41 50	40 52	39 54	38 57	38 00	37 03	36 08	35 14	34 19	33 26	32 33	9	00
	10	41 29	40 30	39 31	38 34	37 38	36 42	35 46	34 52	33 58	33 05	32 12	31 20		10
	20	40 01	39 02	38 05	37 09	36 12	35 18	34 23	33 30	32 37	31 45	30 53	30 04		20
	30	38 27	37 28	36 32	35 36	34 42	33 47	32 54	32 03	31 11	30 21	29 31	28 42		30
	40	36 44	35 48	34 52	33 58	33 05	32 12	31 20	30 29	29 39	28 51	28 03	27 16		40
	50	34 55	33 59	33 06	32 12	31 20	30 30	29 40	28 51	28 03	27 16	26 29	25 44		50
10	00	32 58	32 04	31 12	30 21	29 31	28 42	27 54	27 07	26 20	25 36	24 51	24 08	10	00
	10	30 53	30 01	29 12	28 22	27 34	26 47	26 02	25 16	24 33	23 50	23 08	22 28		10
	20	28 40	27 51	27 05	26 16	25 32	24 47	24 03	23 21	22 41	22 00	21 21	20 43		20
	30	26 18	25 33	24 48	24 04	23 21	22 40	21 59	21 20	20 42	20 05	19 28	18 43		30
	40	23 49	23 06	22 25	21 45	21 05	20 27	19 50	19 14	18 39	18 05	17 31	16 59		40
	50	21 12	20 33	19 55	19 17	18 43	18 08	17 35	17 03	16 31	16 01	15 30	15 02		50
11	00	18 27	17 51	17 18	16 46	16 15	15 44	15 15	14 46	14 18	13 52	13 25	13 00	11	00
	10	15 35	15 04	14 35	14 07	13 41	13 15	12 50	12 25	12 02	11 39	11 16	10 55		10
	20	12 35	12 11	11 47	11 24	11 02	10 41	10 21	10 01	9 42	9 23	9 05	8 48		20
	30	9 32	9 13	8 55	8 37	8 20	8 05	7 49	7 33	7 19	7 05	6 51	6 38		30
	40	6 24	6 11	5 59	5 47	5 36	5 24	5 14	5 04	4 54	4 44	4 36	4 26		40
	50	3 17	3 07	3 00	2 54	2 48	2 43	2 38	2 32	2 27	2 23	2 18	2 13		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 3°.			DECLINATION—SAME NAME AS—LATITUDE.																LATITUDE 3°.		
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.							
h.	m.	0	1	0	1	0	1	0	1	0	1	0	1	0	1	h.	m.				
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00				
	10	2 22	2 16	2 11	2 07	2 02	1 58	1 53	1 50	1 45	1 41	1 37	1 33	1 33	1 33		10				
	20	4 43	4 33	4 23	4 13	4 04	3 55	3 47	3 38	3 29	3 22	3 13	3 05	3 05	3 05		20				
	30	7 02	6 47	6 32	6 18	6 05	5 51	5 38	5 26	5 13	5 02	4 49	4 38	4 38	4 38		30				
	40	9 20	9 00	8 41	8 22	8 03	7 46	7 29	7 12	6 56	6 40	6 24	6 10	6 10	6 10		40				
	50	11 34	11 09	10 46	10 23	10 00	9 38	9 17	8 57	8 37	8 17	7 58	7 40	7 40	7 40		50				
1	00	13 44	13 16	12 48	12 20	11 55	11 29	11 03	10 39	10 15	9 52	9 30	9 08	9 08	9 08	1	00				
	10	15 51	15 18	14 46	14 16	13 45	13 16	12 48	12 19	11 53	11 26	10 59	10 34	10 34	10 34		10				
	20	17 53	17 17	16 41	16 07	15 33	15 00	14 28	13 57	13 27	12 57	12 27	11 59	11 59	11 59		20				
	30	19 50	19 10	18 31	17 54	17 17	16 41	16 06	15 32	14 58	14 25	13 52	13 21	13 21	13 21		30				
	40	21 43	20 59	20 18	19 37	18 57	18 18	17 40	17 03	16 26	15 50	15 15	14 40	14 40	14 40		40				
	50	23 29	22 43	21 59	21 16	20 33	19 52	19 10	18 30	17 51	17 12	16 34	15 57	15 57	15 57		50				
2	00	25 11	24 23	23 35	22 50	22 04	21 21	20 37	20 55	19 13	18 32	17 51	17 11	17 11	17 11	2	00				
	10	26 47	25 57	25 08	24 20	23 32	22 45	21 59	21 15	20 31	19 48	19 04	18 22	18 22	18 22		10				
	20	28 16	27 25	26 34	25 44	24 55	24 06	23 18	22 31	21 46	20 59	20 14	19 31	19 31	19 31		20				
	30	29 42	28 48	27 55	27 03	26 13	25 23	24 33	23 44	22 56	22 09	21 21	20 36	20 36	20 36		30				
	40	31 01	30 06	29 12	28 19	27 26	26 34	25 43	24 53	24 04	23 14	22 25	21 38	21 38	21 38		40				
	50	32 16	31 20	30 24	29 30	28 35	27 43	26 50	25 57	25 06	24 15	23 25	22 36	22 36	22 36		50				
3	00	33 25	32 28	31 31	30 35	29 40	28 45	27 52	26 58	26 06	25 14	24 22	23 31	23 31	23 31	3	00				
	10	34 29	33 31	32 34	31 37	30 41	29 46	28 50	27 56	27 02	26 09	25 15	24 23	24 23	24 23		10				
	20	35 28	34 30	33 31	32 34	31 37	30 40	29 44	28 49	27 55	26 59	26 05	25 12	25 12	25 12		20				
	30	36 22	35 23	34 24	33 27	32 29	31 31	30 34	29 38	28 42	27 47	26 51	25 57	25 57	25 57		30				
	40	37 14	36 13	35 13	34 15	33 16	32 19	31 21	30 24	29 28	28 31	27 35	26 39	26 39	26 39		40				
	50	37 57	36 55	35 53	34 59	34 00	33 02	32 03	31 06	30 09	29 11	28 14	27 18	27 18	27 18		50				
4	00	38 40	37 39	36 39	35 40	34 40	33 41	32 43	31 44	30 47	29 49	28 51	27 54	27 54	27 54	4	00				
	10	39 16	38 16	37 16	36 16	35 17	34 17	33 18	32 19	31 21	30 23	29 24	28 26	28 26	28 26		10				
	20	39 50	38 49	37 49	36 49	35 49	34 49	33 50	32 51	31 52	30 53	29 54	28 56	28 56	28 56		20				
	30	40 18	39 18	38 17	37 18	36 17	35 18	34 18	33 19	32 19	31 20	30 20	29 22	29 22	29 22		30				
	40	40 44	39 44	38 43	37 43	36 42	35 43	34 42	33 43	32 43	31 44	30 44	29 45	29 45	29 45		40				
	50	41 06	40 05	39 05	38 05	37 05	36 04	35 04	34 04	33 04	32 04	31 04	30 06	30 06	30 06		50				
5	00	41 24	40 24	39 24	38 23	37 22	36 22	35 22	34 22	33 22	32 22	31 22	30 22	30 22	30 22	5	00				
	10	41 39	40 39	39 38	38 37	37 37	36 37	35 36	34 36	33 36	32 36	31 36	30 37	30 37	30 37		10				
	20	41 51	40 50	39 50	38 49	37 48	36 49	35 48	34 48	33 48	32 47	31 47	30 47	30 47	30 47		20				
	30	41 58	40 58	39 58	38 57	37 57	36 57	35 56	34 56	33 57	32 56	31 55	30 55	30 55	30 55		30				
	40	42 03	41 02	40 02	39 02	38 02	37 01	36 01	35 01	34 02	33 01	32 01	31 00	31 00	31 00		40				
	50	42 05	41 04	40 04	39 04	38 04	37 04	36 04	35 04	34 04	33 03	32 03	31 02	31 02	31 02		50				
6	00	42 03	41 02	40 02	39 03	38 03	37 02	36 02	35 02	34 03	33 02	32 02	31 03	31 03	31 03	6	00				
	10	41 57	40 57	39 57	38 58	37 57	36 58	35 58	34 58	33 59	32 58	31 59	30 59	30 59	30 59		10				
	20	41 49	40 49	39 49	38 50	37 50	36 50	35 50	34 51	33 51	32 51	31 52	30 52	30 52	30 52		20				
	30	41 37	40 38	39 38	38 39	37 39	36 40	35 40	34 40	33 42	32 42	31 42	30 43	30 43	30 43		30				
	40	41 22	40 23	39 24	38 25	37 25	36 26	35 26	34 27	33 29	32 29	31 29	30 31	30 31	30 31		40				
	50	41 05	40 05	39 06	38 07	37 08	36 09	35 10	34 11	33 12	32 13	31 15	30 15	30 15	30 15		50				
7	00	40 43	39 44	38 45	37 47	36 47	35 49	34 50	33 52	32 54	31 54	30 56	29 57	29 57	29 57	7	00				
	10	40 18	39 19	38 21	37 22	36 24	35 26	34 27	33 29	32 31	31 33	30 35	29 37	29 37	29 37		10				
	20	39 49	38 51	37 52	36 55	35 56	34 58	34 01	33 03	32 05	31 08	30 10	29 13	29 13	29 13		20				
	30	39 17	38 19	37 21	36 24	35 26	34 29	33 31	32 34	31 38	30 40	29 43	28 47	28 47	28 47		30				
	40	38 42	37 44	36 47	35 50	34 53	33 57	32 59	32 03	31 06	30 10	29 13	28 17	28 17	28 17		40				
	50	38 03	37 06	36 09	35 12	34 16	33 19	32 23	31 27	30 31	29 35	28 40	27 45	27 45	27 45		50				
8	00	37 20	36 24	35 27	34 31	33 35	32 39	31 43	30 49	29 54	28 59	28 04	27 09	27 09	27 09	8	00				
	10	36 33	35 38	34 42	33 46	32 51	31 56	31 01	30 06	29 12	28 18	27 25	26 32	26 32	26 32		10				
	20	35 43	34 48	33 52	32 58	32 03	31 09	30 15	29 22	28 28	27 35	26 43	25 50	25 50	25 50		20				
	30	34 48	33 54	32 59	32 06	31 12	30 19	29 26	28 33	27 41	26 49	25 57	25 06	25 06	25 06		30				
	40	33 50	32 56	32 03	31 10	30 17	29 25	28 32	27 42	26 50	26 00	25 09	24 18	24 18	24 18		40				
	50	32 47	31 54	31 02	30 11	29 18	28 27	27 36	26 47	25 56	25 07	24 17	23 29	23 29	23 29		50				
9	00	31 40	30 49	29 58	29 07	28 15	27 26	26 37	25 47	24 59	24 11	23 23	22 36	22 36	22 36	9	00				
	10	30 28	29 38	28 48	27 59	27 10	26 21	25 33	24 45	23 59	23 12	22 26	21 40	21 40	21 40		10				
	20	29 15	28 24	27 35	26 47	26 00	25 13	24 26	23 41	22 55	22 10	21 26	20 42	20 42	20 42		20				
	30	27 53	27 05	26 18	25 32	24 46	24 00	23 15	22 32	21 49	21 05	20 21	19 40	19 40	19 40		30				
	40	26 28	25 42	24 57	24 13	23 28	22 45	22 02	21 19	20 38	19 57	19 16	18 35	18 35	18 35		40				
	50	24 58	24 14	23 32	22 49	22 06	21 25	20 44	20 04	19 25	18 46	18 07	17 29	17 29	17 29		50				
10	00	23 25	22 43	22 02	21 22	20 42	20 02	19 24	18 46	18 09	17 32	16 56	16 19	16 19	16 19	10	00				
	10	21 47	21 08	20 29	19 51	19 13	18 36	18 00	17 25	16 50	16 14	15 41	15 07	15 07	15 07		10				
	20	20 05	19 28	18 51	18 16	17 41	17 07	16 33	16 01	15 28	14 56	14 24	13 54	13 54	13 54		20				
	30	18 18	17 43	17 10	16 38	16 06															

AZIMUTH OR TRUE BEARING.

LATITUDE 3°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 3°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	1 29	1 26	1 22	1 19	1 15	1 12	1 08	1 05	1 02	0 58	0 55	1	10	
	20	2 59	2 51	2 44	2 37	2 30	2 23	2 16	2 10	2 04	1 58	1 51	2	20	
	30	4 27	4 16	4 05	3 54	3 45	3 34	3 24	3 15	3 05	2 56	2 46	3	30	
	40	5 54	5 40	5 25	5 12	4 59	4 45	4 31	4 19	4 06	3 53	3 42	4	40	
	50	7 20	7 03	6 45	6 29	6 11	5 55	5 38	5 23	5 06	4 51	4 36	5	50	
1	00	8 45	8 24	8 03	7 43	7 23	7 03	6 44	6 25	6 06	5 48	5 29	1	00	
	10	10 09	9 44	9 20	8 57	8 33	8 11	7 49	7 26	7 05	6 44	6 22	1	10	
	20	11 30	11 02	10 35	10 08	9 42	9 17	8 51	8 27	8 03	7 38	7 14	2	20	
	30	12 49	12 19	11 49	11 19	10 50	10 21	9 53	9 26	8 59	8 32	8 04	3	30	
	40	14 06	13 33	13 00	12 28	11 56	11 25	10 54	10 23	9 53	9 24	8 55	4	40	
	50	15 20	14 44	14 09	13 34	12 59	12 26	11 52	11 19	10 47	10 15	9 43	5	50	
2	00	16 32	15 54	15 15	14 38	14 02	13 25	12 49	12 14	11 39	11 04	10 30	2	00	
	10	17 41	17 00	16 20	15 40	15 00	14 22	13 44	13 06	12 29	11 52	11 15	2	10	
	20	18 47	18 03	17 21	16 39	15 58	15 18	14 36	13 57	13 17	12 38	11 59	3	20	
	30	19 49	19 05	18 21	17 36	16 53	16 10	15 28	14 45	14 04	13 23	12 42	3	30	
	40	20 49	20 03	19 16	18 30	17 45	17 00	16 16	15 32	14 49	14 05	13 23	4	40	
	50	21 47	20 58	20 10	19 22	18 35	17 49	17 02	16 17	15 31	14 46	14 02	5	50	
3	00	22 40	21 50	21 00	20 11	19 22	18 35	17 46	16 59	16 12	15 25	14 38	3	00	
	10	23 31	22 39	21 48	20 58	20 07	19 18	18 28	17 39	16 50	16 02	15 13	3	10	
	20	24 18	23 25	22 33	21 41	20 49	19 59	19 07	18 17	17 27	16 37	15 47	4	20	
	30	25 02	24 09	23 15	22 22	21 29	20 37	19 45	18 52	18 00	17 10	16 18	4	30	
	40	25 44	24 49	23 54	23 00	22 05	21 12	20 19	19 26	18 33	17 40	16 48	5	40	
	50	26 22	25 26	24 30	23 35	22 40	21 45	20 51	19 56	19 02	18 09	17 16	5	50	
4	00	26 56	26 00	25 04	24 08	23 11	22 16	21 20	20 25	19 30	18 35	17 40	4	00	
	10	27 29	26 31	25 34	24 37	23 40	22 44	21 48	20 51	19 55	19 00	18 04	4	10	
	20	27 57	27 00	26 02	25 04	24 06	23 10	22 12	21 15	20 18	19 21	18 25	5	20	
	30	28 23	27 25	26 26	25 27	24 30	23 32	22 34	21 37	20 38	19 41	18 44	5	30	
	40	28 46	27 47	26 48	25 49	24 51	23 52	22 54	21 56	20 57	20 00	19 02	5	40	
	50	29 06	28 06	27 07	26 08	25 08	24 10	23 11	22 12	21 14	20 15	19 16	5	50	
5	00	29 23	28 23	27 23	26 23	25 24	24 25	23 27	22 26	21 27	20 29	19 29	5	00	
	10	29 36	28 36	27 37	26 37	25 37	24 38	23 38	22 38	21 38	20 40	19 39	5	10	
	20	29 47	28 47	27 47	26 47	25 46	24 47	23 48	22 47	21 48	20 49	19 48	6	20	
	30	29 54	28 55	27 55	26 54	25 54	24 54	23 55	22 54	21 54	20 55	19 55	6	30	
	40	30 00	29 00	28 00	27 00	25 59	25 00	23 59	22 59	22 00	21 00	20 00	6	40	
	50	30 02	29 02	28 02	27 02	26 02	25 02	24 02	23 02	22 01	21 02	20 01	6	50	
6	00	30 02	29 02	28 02	27 02	26 01	25 02	24 01	23 02	22 02	21 02	20 02	6	00	
	10	29 58	28 59	27 59	26 59	25 58	24 59	24 00	22 59	21 59	20 59	19 59	6	10	
	20	29 53	28 53	27 53	26 53	25 54	24 54	23 55	22 54	21 55	20 56	19 55	7	20	
	30	29 44	28 44	27 45	26 45	25 45	24 46	23 47	22 48	21 48	20 49	19 50	7	30	
	40	29 32	28 32	27 33	26 34	25 35	24 36	23 37	22 39	21 39	20 40	19 41	7	40	
	50	29 17	28 18	27 20	26 21	25 22	24 24	23 25	22 27	21 27	20 29	19 31	7	50	
7	00	29 00	28 01	27 03	26 05	25 07	24 09	23 10	22 12	21 15	20 17	19 18	7	00	
	10	28 39	27 41	26 44	25 46	24 48	23 51	22 54	21 56	20 59	20 02	19 04	7	10	
	20	28 16	27 19	26 22	25 25	24 28	23 31	22 35	21 37	20 40	19 44	18 47	8	20	
	30	27 50	26 54	25 57	25 01	24 04	23 09	22 12	21 17	20 20	19 25	18 29	8	30	
	40	27 22	26 25	25 30	24 34	23 38	22 44	21 48	20 53	19 58	19 03	18 08	8	40	
	50	26 49	25 55	25 01	24 06	23 11	22 17	21 22	20 28	19 33	18 40	17 46	8	50	
8	00	26 15	25 21	24 27	23 33	22 40	21 46	20 54	20 00	19 07	18 15	17 22	8	00	
	10	25 38	24 45	23 52	22 59	22 07	21 15	20 23	19 31	18 39	17 47	16 56	8	10	
	20	24 57	24 05	23 15	22 22	21 31	20 40	19 49	18 58	18 07	17 17	16 27	9	20	
	30	24 14	23 24	22 33	21 43	20 52	20 03	19 14	18 24	17 34	16 46	15 57	9	30	
	40	23 28	22 39	21 50	21 01	20 12	19 24	18 36	17 48	17 00	16 13	15 25	9	40	
	50	22 40	21 52	21 05	20 17	19 29	18 43	17 57	17 10	16 23	15 37	14 51	9	50	
9	00	21 49	21 02	20 16	19 30	18 44	17 59	17 14	16 29	15 44	15 00	14 16	9	00	
	10	20 54	20 09	19 25	18 41	17 57	17 13	16 30	15 47	15 03	14 21	13 39	9	10	
	20	19 58	19 15	18 32	17 49	17 06	16 26	15 43	15 02	14 22	13 41	13 00	10	20	
	30	18 58	18 17	17 35	16 55	16 15	15 35	14 55	14 16	13 36	12 59	12 20	10	30	
	40	17 56	17 16	16 37	15 58	15 20	14 43	14 06	13 28	12 51	12 14	11 38	10	40	
	50	16 51	16 13	15 37	14 58	14 24	13 48	13 14	12 38	12 04	11 29	10 55	10	50	
10	00	15 44	15 09	14 34	14 00	13 26	12 53	12 19	11 47	11 14	10 42	10 09	10	00	
	10	14 34	14 02	13 29	12 58	12 26	11 55	11 24	10 53	10 24	9 54	9 24	11	10	
	20	13 23	12 53	12 22	11 53	11 24	10 56	10 28	9 59	9 32	9 04	8 37	11	20	
	30	12 09	11 42	11 15	10 47	10 21	9 54	9 29	9 03	8 35	8 13	7 48	11	30	
	40	10 53	10 29	10 03	9 40	9 15	8 52	8 28	8 07	7 44	7 21	6 59	11	40	
	50	9 36	9 13	8 52	8 30	8 10	7 49	7 28	7 08	6 48	6 28	6 09	11	50	
11	00	8 16	7 57	7 38	7 20	7 02	6 45	6 27	6 09	5 51	5 34	5 17	11	00	
	10	6 56	6 40	6 24	6 09	5 53	5 38	5 24	5 09	4 54	4 40	4 26	11	10	
	20	5 34	5 21	5 09	4 56	4 44	4 31	4 19	4 08	3 56	3 45	3 34	12	20	
	30	4 11	4 01	3 53	3 43	3 33	3 24	3 15	3 06	2 57	2 49	2 40	12	30	
	40	2 48	2 41	2 35	2 29	2 23	2 17	2 11	2 05	1 59	1 53	1 47	12	40	
	50	1 24	1 21	1 17	1 14	1 11	1 08	1 05	1 02	0 59	0 56	0 53	12	50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 4°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 4°.		
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.			
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	6 39	6 18	5 58	5 41	5 25	5 09	4 55	4 43	4 30	4 18	4 08	3 58		10		
	20	13 06	12 26	11 45	11 14	10 43	10 13	9 46	9 21	8 56	8 34	8 14	7 53		20		
	30	19 12	18 15	17 22	16 34	15 48	15 05	14 26	13 49	13 15	12 43	12 12	11 43		30		
	40	24 49	23 40	22 34	21 33	20 36	19 44	18 54	18 07	17 23	16 41	16 03	15 25		40		
	50	29 56	28 35	27 21	26 11	25 05	24 04	23 05	22 10	21 18	20 29	19 41	18 57		50		
1	00	34 29	33 03	31 42	30 25	29 12	28 03	26 58	25 56	24 58	24 02	23 09	22 17	1	00		
	10	38 32	37 01	35 36	34 15	32 57	31 43	30 33	29 27	28 22	27 22	26 23	25 27		10		
	20	42 05	40 34	39 05	37 41	36 20	35 04	33 49	32 39	31 31	30 26	29 23	28 23		20		
	30	45 13	43 41	42 12	40 46	39 23	38 04	36 48	35 35	34 24	33 16	32 11	31 06		30		
	40	47 58	46 26	44 57	43 31	42 08	40 48	39 30	38 15	37 02	35 52	34 45	33 39		40		
	50	50 23	48 52	47 24	45 58	44 34	43 14	41 56	40 39	39 26	38 15	37 05	35 57		50		
2	00	52 30	51 01	49 33	48 09	46 46	45 26	44 07	42 51	41 36	40 25	39 14	38 05	2	00		
	10	54 21	52 54	51 28	50 05	48 43	47 24	46 06	44 50	43 35	42 23	41 11	40 01		10		
	20	55 59	54 35	53 11	51 48	50 28	49 10	47 52	46 36	45 22	44 10	42 58	41 48		20		
	30	57 26	56 04	54 41	53 21	52 02	50 45	49 28	48 12	46 59	45 47	44 35	43 26		30		
	40	58 42	57 21	56 02	54 43	53 26	52 09	50 54	49 40	48 26	47 15	46 03	44 54		40		
	50	59 50	58 31	57 13	55 56	54 40	53 25	52 11	50 58	49 45	48 34	47 23	46 14		50		
3	00	60 49	59 33	58 16	57 00	55 46	54 33	53 19	52 07	50 55	49 45	48 35	47 26	3	00		
	10	61 42	60 26	59 12	57 58	56 45	55 32	54 21	53 10	51 59	50 50	49 41	48 32		10		
	20	62 28	61 15	60 01	58 49	57 38	56 27	55 16	54 06	52 56	51 48	50 39	49 32		20		
	30	63 09	61 58	60 45	59 34	58 24	57 14	56 05	54 56	53 47	52 39	51 32	50 24		30		
	40	63 45	62 34	61 24	60 14	59 05	57 56	56 48	55 40	54 32	53 26	52 19	51 13		40		
	50	64 16	63 07	61 58	60 50	59 42	58 34	57 27	56 19	55 12	54 06	53 00	51 54		50		
4	00	64 43	63 34	62 27	61 20	60 13	59 07	58 00	56 54	55 48	54 42	53 37	52 31	4	00		
	10	65 05	63 59	62 52	61 46	60 41	59 35	58 30	57 24	56 19	55 14	54 09	53 05		10		
	20	65 24	64 19	63 14	62 09	61 04	59 59	58 55	57 50	56 46	55 41	54 38	53 33		20		
	30	65 41	64 37	63 32	62 28	61 24	60 20	59 16	58 13	57 08	56 05	55 01	53 58		30		
	40	65 54	64 50	63 46	62 43	61 40	60 37	59 34	58 31	57 28	56 24	55 22	54 19		40		
	50	66 04	65 02	63 58	62 56	61 54	60 51	59 49	58 46	57 43	56 41	55 39	54 36		50		
5	00	66 11	65 10	64 08	63 06	62 03	61 01	59 59	58 57	57 56	56 54	55 52	54 50	5	00		
	10	66 17	65 15	64 13	63 12	62 10	61 09	60 08	59 06	58 05	57 04	56 02	55 01		10		
	20	66 19	65 17	64 17	63 16	62 15	61 14	60 12	59 11	58 10	57 09	56 08	55 08		20		
	30	66 19	65 18	64 17	63 16	62 16	61 15	60 15	59 14	58 13	57 13	56 12	55 11		30		
	40	66 16	65 16	64 15	63 15	62 15	61 15	60 13	59 14	58 13	57 13	56 12	55 11		40		
	50	66 10	65 10	64 10	63 10	62 10	61 11	60 11	59 10	58 10	57 10	56 10	55 09		50		
6	00	66 03	65 03	64 03	63 04	62 04	61 04	60 04	59 04	58 04	57 04	56 04	55 04	6	00		
	10	65 53	64 53	63 53	62 54	61 54	60 54	59 55	58 55	57 55	56 55	55 55	54 55		10		
	20	65 41	64 41	63 41	62 42	61 41	60 42	59 42	58 42	57 43	56 43	55 43	54 44		20		
	30	65 26	64 26	63 26	62 27	61 26	60 27	59 28	58 28	57 28	56 28	55 29	54 29		30		
	40	65 09	64 08	63 08	62 09	61 09	60 09	59 09	58 10	57 10	56 10	55 11	54 11		40		
	50	64 49	63 49	62 48	61 48	60 48	59 49	58 49	57 49	56 49	55 49	54 50	53 50		50		
7	00	64 26	63 26	62 25	61 25	60 25	59 24	58 25	57 25	56 25	55 25	54 25	53 26	7	00		
	10	64 00	63 00	62 00	61 00	60 00	59 00	58 00	57 00	56 00	55 00	54 00	53 00		10		
	20	63 31	62 31	61 29	60 28	59 28	58 27	57 27	56 26	55 26	54 27	53 27	52 27		20		
	30	63 00	62 00	61 00	60 00	59 00	58 00	57 00	56 00	55 00	54 00	53 00	52 00		30		
	40	62 25	61 23	60 21	59 19	58 17	57 17	56 16	55 14	54 14	53 13	52 13	51 14		40		
	50	61 46	60 43	59 41	58 39	57 37	56 36	55 34	54 33	53 32	52 31	51 31	50 31		50		
8	00	61 03	60 00	58 57	57 54	56 52	55 51	54 48	53 47	52 46	51 45	50 44	49 44	8	00		
	10	60 17	59 12	58 09	57 05	56 03	55 00	53 59	52 57	51 55	50 55	49 54	48 53		10		
	20	59 25	58 20	57 16	56 12	55 09	54 06	53 03	52 01	51 00	49 58	48 58	47 58		20		
	30	58 29	57 24	56 18	55 14	54 10	53 07	52 04	51 02	50 00	48 59	47 58	46 57		30		
	40	57 27	56 21	55 15	54 10	53 05	52 02	50 58	49 56	48 54	47 53	46 53	45 52		40		
	50	56 20	55 13	54 06	53 01	51 56	50 52	49 48	48 45	47 43	46 41	45 41	44 40		50		
9	00	55 06	53 58	52 50	51 44	50 39	49 35	48 31	47 28	46 25	45 24	44 24	43 23	9	00		
	10	53 44	52 36	51 27	50 21	49 15	48 11	47 07	46 04	45 02	44 00	43 00	42 00		10		
	20	52 15	51 07	50 00	48 52	47 45	46 40	45 36	44 33	43 32	42 31	41 31	40 31		20		
	30	50 38	49 29	48 20	47 12	46 06	45 02	43 58	42 55	41 54	40 53	39 53	38 55		30		
	40	48 51	47 41	46 32	45 24	44 19	43 14	42 11	41 08	40 08	39 07	38 09	37 12		40		
	50	46 54	45 44	44 34	43 27	42 22	41 18	40 15	39 13	38 14	37 15	36 17	35 22		50		
10	00	44 44	43 35	42 26	41 20	40 15	39 11	38 10	37 10	36 11	35 13	34 17	33 21	10	00		
	10	42 23	41 14	40 05	39 00	37 56	36 54	35 54	34 55	33 58	33 02	32 09	31 16		10		
	20	39 47	38 40	37 33	36 29	35 27	34 27	33 29	32 32	31 37	30 43	29 52	29 01		20		
	30	36 58	35 51	34 47	33 46	32 45	31 48	30 52	29 58	29 06	28 15	27 26	26 35		30		
	40	33 52	32 48	31 47	30 48	29 51	28 56	28 03	27 13	26 24	25 37	24 51	24 06		40		
	50	30 29	29 29	28 31	27 37	26 45	25 54	25 06	24 19	23 33	22 49	22 08	21 27		50		
11	00	26 50	25 55	25 03	24 12	23 25	22 39	21 55	21 13	20 32	19 54	19 16	18 40	11	00		
	10	22 55	22 05	21 19	20 35	19 53	19 13	18 35	17 58	17 22	16 50	16 17	15 46		10		
	20	18 42	18 01	17 22	16 45	16 10	15 37	15 04	14 34	14 06	13 38	13 11	12 45		20		
	30	14 16	13 44	13 12	12 44	12 17	11 51	11 26	11 03	10 41	10 18	9 58	9 39		30		
	40	9 38	9 15	8 54	8 35	8 17	7 58	7 42	7 25	7 10	6 55	6 42	6 25		40		
	50	4 51	4 40	4 29	4 19	4 10	4 00	3 52	3 44	3 36	3 29	3 21	3 14		50		
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00		

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 40.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 40.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	3 48	3 40	3 31	3 23	3 15	3 08	3 01	2 54	2 48	2 42	2 36	2 29		10
	20	7 34	7 17	7 00	6 44	6 29	6 14	6 00	5 47	5 34	5 21	5 10	4 59		20
	30	11 16	10 50	10 25	10 02	9 38	9 17	8 57	8 37	8 19	8 00	7 43	7 26		30
	40	14 50	14 16	13 44	13 14	12 45	12 17	11 50	11 24	10 59	10 36	10 13	9 51		40
	50	18 14	17 34	16 56	16 18	15 43	15 09	14 36	14 06	13 35	13 06	12 39	12 12		50
1	00	21 29	20 43	19 59	19 16	18 35	17 56	17 18	16 42	16 06	15 33	15 00	14 29	1	00
	10	24 33	23 42	22 53	22 05	21 19	20 35	19 53	19 11	18 32	17 54	17 17	16 42		10
	20	27 26	26 30	25 36	24 44	23 55	23 06	22 20	21 35	20 51	20 09	19 28	18 48		20
	30	30 06	29 07	28 10	27 15	26 21	25 30	24 39	23 50	23 04	22 18	21 34	20 51		30
	40	32 34	31 33	30 33	29 35	28 39	27 44	26 51	25 59	25 09	24 21	23 33	22 47		40
	50	34 52	33 48	32 47	31 46	30 47	29 50	28 54	28 00	27 07	26 16	25 26	24 36		50
2	00	36 58	35 54	34 50	33 47	32 47	31 48	30 50	29 54	28 58	28 05	27 13	26 21	2	00
	10	38 54	37 48	36 43	35 39	34 37	33 37	32 38	31 39	30 43	29 47	28 53	27 59		10
	20	40 40	39 33	38 28	37 23	36 20	35 18	34 18	33 18	32 20	31 23	30 27	29 32		20
	30	42 17	41 10	40 04	38 59	37 55	36 52	35 51	34 50	33 51	32 52	31 54	30 58		30
	40	43 45	42 39	41 32	40 26	39 21	38 19	37 16	36 15	35 14	34 15	33 17	31 18		40
	50	45 05	43 59	42 52	41 46	40 41	39 38	38 35	37 32	36 32	35 32	34 33	33 34		50
3	00	46 19	45 12	44 06	42 59	41 54	40 51	39 47	38 45	37 43	36 43	35 43	34 43	3	00
	10	47 25	46 18	45 12	44 06	43 02	41 58	40 55	39 51	38 49	37 49	36 48	35 47		10
	20	48 25	47 18	46 12	45 07	44 03	42 59	41 55	40 52	39 49	38 48	37 48	36 48		20
	30	49 18	48 12	47 07	46 02	44 57	43 54	42 50	41 47	40 44	39 43	38 42	37 41		30
	40	50 06	49 01	47 57	46 51	45 47	44 43	43 41	42 37	41 34	40 33	39 32	38 30		40
	50	50 49	49 45	48 40	47 36	46 31	45 28	44 26	43 22	42 19	41 18	40 16	39 15		50
4	00	51 27	50 24	49 20	48 15	47 11	46 08	45 05	44 03	43 00	41 59	40 57	39 56	4	00
	10	52 01	50 57	49 54	48 50	47 47	46 44	45 41	44 39	43 36	42 35	41 34	40 32		10
	20	52 31	51 27	50 24	49 21	48 18	47 15	46 13	45 10	44 08	43 07	42 06	41 04		20
	30	52 55	51 53	50 51	49 47	48 44	47 43	46 40	45 38	44 36	43 35	42 33	41 32		30
	40	53 17	52 14	51 12	50 10	49 08	48 06	47 04	46 02	45 00	43 59	42 58	41 56		40
	50	53 35	52 33	51 30	50 29	49 27	48 26	47 24	46 22	45 21	44 19	43 19	42 17		50
5	00	53 49	52 47	51 45	50 44	49 42	48 41	47 39	46 38	45 37	44 36	43 35	42 34	5	00
	10	54 00	52 58	51 57	50 55	49 54	48 53	47 52	46 51	45 50	44 49	43 49	42 48		10
	20	54 06	53 06	52 05	51 04	50 03	49 02	48 02	47 00	45 59	44 59	43 58	42 59		20
	30	54 11	53 10	52 10	51 09	50 08	49 08	48 07	47 07	46 06	45 05	44 05	43 04		30
	40	54 11	53 12	52 11	51 11	50 10	49 10	48 09	47 09	46 09	45 08	44 08	43 07		40
	50	54 09	53 09	52 09	51 09	50 08	49 09	48 08	47 08	46 07	45 08	44 08	43 08		50
6	00	54 04	53 04	52 05	51 04	50 04	49 05	48 04	47 04	46 04	45 04	44 05	43 04	6	00
	10	53 55	52 56	51 56	50 55	49 56	48 57	47 57	46 56	45 57	44 58	43 58	42 58		10
	20	53 44	52 44	51 45	50 45	49 45	48 46	47 47	46 46	45 47	44 47	43 48	42 48		20
	30	53 29	52 30	51 31	50 31	49 31	48 32	47 32	46 33	45 33	44 34	43 35	42 35		30
	40	53 11	52 13	51 13	50 13	49 14	48 14	47 15	46 16	45 16	44 17	43 18	42 19		40
	50	52 50	51 51	50 52	49 53	48 52	47 54	46 54	45 55	44 56	43 57	42 59	41 59		50
7	00	52 26	51 27	50 27	49 28	48 29	47 30	46 31	45 32	44 33	43 34	42 35	41 37	7	00
	10	51 58	50 59	50 00	49 00	48 01	47 03	46 04	45 04	44 06	43 08	42 09	41 10		10
	20	51 27	50 28	49 29	48 29	47 30	46 32	45 33	44 34	43 36	42 37	41 39	40 40		20
	30	50 53	49 53	48 54	47 55	46 56	45 57	44 58	44 00	43 01	42 03	41 05	40 07		30
	40	50 14	49 14	48 15	47 16	46 17	45 18	44 20	43 22	42 24	41 25	40 29	39 31		40
	50	49 31	48 31	47 32	46 33	45 35	44 37	43 38	42 40	41 42	40 44	39 47	38 50		50
8	00	47 54	47 45	46 46	45 47	44 49	43 50	42 52	41 54	40 56	40 00	39 03	38 05	8	00
	10	47 54	46 54	45 55	44 56	43 57	42 58	41 59	40 60	40 07	39 11	38 15	37 17		10
	20	46 58	45 59	44 60	43 61	42 62	41 63	40 64	39 65	38 66	37 67	36 68	35 69		20
	30	45 57	44 59	43 59	42 61	41 62	40 63	39 64	38 65	37 66	36 67	35 68	34 69		30
	40	44 52	43 53	42 55	41 56	40 57	39 58	38 59	37 60	36 61	35 62	34 63	33 64		40
	50	43 41	42 42	41 44	40 46	39 49	38 53	37 57	36 60	35 63	34 66	33 69	32 72		50
9	00	42 24	41 27	40 29	39 32	38 34	37 39	36 44	35 50	34 55	34 03	33 10	32 17	9	00
	10	41 02	40 05	39 07	38 10	37 15	36 21	35 26	34 32	33 39	32 47	31 56	31 05		10
	20	39 33	38 36	37 40	36 44	35 49	34 55	34 03	33 10	32 18	31 28	30 38	29 46		20
	30	37 58	37 01	36 06	35 11	34 18	33 26	32 33	31 42	30 52	30 02	29 13	28 25		30
	40	36 15	35 20	34 27	33 33	32 40	31 49	30 59	30 09	29 20	28 32	27 46	26 58		40
	50	34 26	33 32	32 40	31 48	30 57	30 08	29 19	28 31	27 43	26 58	26 13	25 27		50
10	00	32 29	31 37	30 46	29 56	29 08	28 20	27 33	26 47	26 02	25 18	24 35	23 52	10	00
	10	30 25	29 34	28 46	27 58	27 11	26 26	25 41	24 58	24 15	23 33	22 52	22 12		10
	20	28 12	27 25	26 39	25 53	25 08	24 26	23 44	23 02	22 22	21 43	21 05	20 27		20
	30	25 52	25 07	24 24	23 41	23 00	22 20	21 41	21 02	20 25	19 49	19 14	18 39		30
	40	23 23	22 42	22 02	21 23	20 45	20 08	19 33	18 57	18 23	17 50	17 18	16 46		40
	50	20 48	20 11	19 34	18 59	18 25	17 51	17 19	16 49	16 17	15 47	15 18	14 49		50
11	00	18 05	17 32	16 59	16 28	15 58	15 29	15 00	14 32	14 06	13 40	13 14	12 49	11	00
	10	15 16	14 47	14 20	13 52	13 27	13 02	12 38	12 14	11 51	11 29	11 07	10 46		10
	20	12 21	11 57	11 35	11 13	10 51	10 31	10 11	9 52	9 33	9 15	8 58	8 41		20
	30	9 20	9 02	8 44	8 28	8 12	7 57	7 41	7 26	7 13	6 58	6 45	6 33		30
	40	6 16	6 03	5 52	5 40	5 30	5 19	5 09	4 59	4 50	4 40	4 32	4 22		40
	50	3 09	3 02	2 56	2 51	2 45	2 40	2 34	2 29	2 25	2 20	2 16	2 12		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 4°.				DECLINATION—SAME NAME AS—LATITUDE.																LATITUDE 4°.			
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.									
h.	m.	0	1	2	3	4	5	6	7	8	9	10	11	h.	m.								
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00								
	10	2 25	2 19	2 14	2 09	2 04	2 00	1 55	1 51	1 46	1 42	1 38	1 35		10								
	20	4 48	4 38	4 27	4 17	4 08	3 58	3 50	3 41	3 33	3 24	3 16	3 09		20								
	30	7 10	6 54	6 39	6 25	6 10	5 56	5 43	5 30	5 18	5 05	4 53	4 41		30								
	40	9 29	9 09	8 49	8 30	8 11	7 52	7 35	7 18	7 01	6 45	6 29	6 14		40								
	50	11 45	11 20	10 56	10 32	10 09	9 47	9 25	9 04	8 44	8 24	8 04	7 45		50								
1	00	13 58	13 29	13 00	12 31	12 05	11 38	11 12	10 48	10 24	10 00	9 37	9 14	1	00								
	10	16 06	15 33	15 00	14 28	13 58	13 27	12 58	12 29	12 01	11 33	11 07	10 41		10								
	20	18 10	17 32	16 56	16 21	15 46	15 12	14 40	14 07	13 36	13 05	12 36	12 06		20								
	30	20 09	19 28	18 48	18 09	17 31	16 55	16 19	15 42	15 08	14 35	14 02	13 29		30								
	40	22 02	21 19	20 35	19 53	19 12	18 32	17 53	17 15	16 37	16 01	15 25	14 49		40								
	50	23 49	23 03	22 17	21 32	20 48	20 05	19 24	18 43	18 03	17 23	16 45	16 07		50								
2	00	25 31	24 43	23 54	23 07	22 21	21 36	20 52	20 08	19 25	18 43	18 03	17 22	2	00								
	10	27 07	26 16	25 26	24 36	23 48	23 01	22 14	21 29	20 44	19 59	19 16	18 32		10								
	20	28 37	27 43	26 53	26 02	25 11	24 22	23 34	22 45	21 58	21 12	20 26	19 41		20								
	30	30 03	29 08	28 15	27 21	26 29	25 38	24 45	23 59	23 09	22 21	21 34	20 46		30								
	40	31 22	30 26	29 31	28 37	27 43	26 51	25 59	25 07	24 16	23 26	22 37	21 49		40								
	50	32 36	31 39	30 43	29 47	28 52	27 58	27 05	26 11	25 20	24 28	23 37	22 47		50								
3	00	33 44	32 46	31 49	30 52	29 56	29 02	28 06	27 12	26 20	25 26	24 34	23 42	3	00								
	10	34 48	33 49	32 51	31 53	30 56	30 00	29 04	28 09	27 15	26 20	25 27	24 33		10								
	20	35 47	34 47	33 49	32 50	31 52	30 55	29 59	29 03	28 06	27 11	26 17	25 22		20								
	30	36 41	35 41	34 41	33 42	32 44	31 46	30 48	29 52	28 55	27 58	27 03	26 08		30								
	40	37 29	36 29	35 29	34 30	33 31	32 33	31 34	30 37	29 39	28 42	27 45	26 49		40								
	50	38 15	37 14	36 14	35 14	34 14	33 15	32 17	31 18	30 20	29 22	28 25	27 27		50								
4	00	38 54	37 53	36 54	35 53	34 53	33 53	32 54	31 55	30 57	29 58	29 01	28 03	4	00								
	10	39 31	38 30	37 29	36 29	35 29	34 29	33 29	32 30	31 31	30 32	29 34	28 35		10								
	20	40 02	39 02	38 01	37 00	36 00	35 00	34 00	33 00	32 01	31 02	30 03	29 04		20								
	30	40 31	39 30	38 29	37 28	36 28	35 27	34 28	33 27	32 28	31 28	30 29	29 30		30								
	40	40 55	39 54	38 53	37 53	36 52	35 51	34 51	33 52	32 51	31 52	30 52	29 52		40								
	50	41 16	40 15	39 14	38 13	37 12	36 12	35 12	34 11	33 12	32 11	31 12	30 11		50								
5	00	41 34	40 32	39 31	38 30	37 30	36 30	35 29	34 29	33 28	32 28	31 28	30 27	5	00								
	10	41 46	40 46	39 45	38 45	37 44	36 43	35 43	34 42	33 42	32 41	31 42	30 42		10								
	20	41 57	40 56	39 55	38 55	37 54	36 54	35 54	34 53	33 53	32 52	31 53	30 52		20								
	30	42 04	41 03	40 03	39 01	38 01	37 01	36 01	35 00	34 00	33 00	32 00	31 00		30								
	40	42 08	41 07	40 07	39 06	38 06	37 05	36 05	35 04	34 04	33 04	32 04	31 03		40								
	50	42 07	41 07	40 07	39 06	38 06	37 07	36 06	35 06	34 06	33 06	32 06	31 05		50								
6	00	42 04	41 04	40 04	39 05	38 04	37 04	36 04	35 04	34 04	33 03	32 04	31 04	6	00								
	10	41 58	40 59	39 59	38 58	37 58	36 59	35 59	34 59	33 59	32 59	32 00	30 59		10								
	20	41 49	40 49	39 49	38 50	37 50	36 50	35 51	34 51	33 51	32 52	31 53	30 52		20								
	30	41 35	40 37	39 37	38 37	37 38	36 38	35 39	34 40	33 41	32 41	31 42	30 43		30								
	40	41 20	40 21	39 21	38 22	37 23	36 24	35 25	34 26	33 26	32 28	31 29	30 30		40								
	50	41 00	40 02	39 03	38 04	37 05	36 05	35 07	34 09	33 09	32 11	31 13	30 13		50								
7	00	40 38	39 39	38 40	37 42	36 43	35 45	34 46	33 48	32 50	31 52	30 54	29 55	7	00								
	10	40 12	39 14	38 15	37 16	36 18	35 20	34 23	33 25	32 27	31 30	30 32	29 34		10								
	20	39 42	38 44	37 46	36 49	35 50	34 53	33 56	32 59	32 01	31 04	30 07	29 09		20								
	30	39 09	38 12	37 14	36 17	35 19	34 22	33 25	32 29	31 32	30 36	29 39	28 43		30								
	40	38 34	37 36	36 38	35 42	34 45	33 48	32 52	31 57	31 00	30 04	29 08	28 12		40								
	50	37 53	36 56	36 00	35 03	34 07	33 11	32 15	31 20	30 24	29 28	28 35	27 39		50								
8	00	37 09	36 13	35 18	34 21	33 25	32 31	31 36	30 41	29 47	28 51	27 58	27 03	8	00								
	10	36 22	35 27	34 31	33 36	32 41	31 47	30 53	29 59	29 05	28 11	27 19	26 25		10								
	20	35 31	34 36	33 41	32 47	31 53	30 59	30 06	29 14	28 20	27 28	26 36	25 43		20								
	30	34 36	33 42	32 48	31 54	31 01	30 08	29 16	28 24	27 32	26 41	25 51	24 59		30								
	40	33 37	32 43	31 51	30 58	30 06	29 15	28 23	27 33	26 41	25 51	25 02	24 12		40								
	50	32 33	31 41	30 50	29 58	29 06	28 16	27 26	26 37	25 48	24 58	24 10	23 21		50								
9	00	31 25	30 34	29 43	28 54	28 04	27 15	26 26	25 37	24 50	24 02	23 16	22 29	9	00								
	10	30 14	29 24	28 34	27 46	26 58	26 09	25 23	24 36	23 49	23 03	22 18	21 33		10								
	20	28 58	28 09	27 22	26 34	25 48	25 01	24 15	23 31	22 46	22 02	21 17	20 34		20								
	30	27 38	26 50	26 05	25 19	24 34	23 49	23 05	22 22	21 39	20 56	20 15	19 32		30								
	40	26 13	25 27	24 44	23 59	23 16	22 33	21 51	21 10	20 29	19 48	19 08	18 25		40								
	50	24 43	24 01	23 18	22 36	21 55	21 14	20 34	19 55	19 15	18 37	18 00	17 21		50								
10	00	23 11	22 29	21 49	21 09	20 31	19 52	19 14	18 37	18 00	17 23	16 48	16 13	10	00								
	10	21 33	20 54	20 16	19 38	19 02	18 26	17 50	17 15	16 41	16 07	15 34	15 00		10								
	20	19 51	19 14	18 39	18 04	17 30	16 57	16 24	15 52	15 20	14 48	14 17	13 46		20								
	30	18 05	17 31	16 59	16 27	15 56	15 24	14 55	14 25	13 56	13 27	12 59	12 31		30								
	40	16 15	15 44	15 15	14 46	14 17	13 50	13 23	12 56	12 29	12 03	11 38	11 13		40								
	50	14 22	13 55	13 28	13 03	12 37	12 12	11 48	11 24	11 01	10 35	10 15	9 53		50								
11	00	12 26	12 02	11 39	11 16	10 54	10 32	10 12	9 50	9 30	9 10	8 51	8 31	11	00								
	10	10 26	10 06	9 46	9 27	9 09	8 51	8 32	8 15	7 58	7 41	7 25	7 08		10								
	20	8 24	8 07	7 52	7 37	7 22	7 06	6 52	6 38	6 24	6 10	5 57	5 44		20								
	30	6 20	6 08	5 55	5 43	5 32	5 21	5 10	5 00	4 49	4 40	4 29	4 19		30								
	40	4 14	4 06	3 58	3 50	3 42	3 35	3 28	3 21	3 13	3 06	3 00	2 53		40								
	50	2 08	2 03	1 59	1 55	1 51	1 48	1 44	1 40	1 37	1 33	1 30	1 26										

AZIMUTH OR TRUE BEARING.

LATITUDE 4°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 4°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	1 30	1 27	1 23	1 19	1 15	1 12	1 09	1 06	1 03	0 59	0 56		10	
	20	3 01	2 53	2 46	2 39	2 31	2 24	2 18	2 11	2 05	1 58	1 52		20	
	30	4 30	4 18	4 08	3 57	3 47	3 36	3 26	3 17	3 07	2 57	2 47		30	
	40	5 59	5 43	5 29	5 15	5 01	4 48	4 34	4 21	4 09	3 56	3 43		40	
	50	7 25	7 07	6 50	6 32	6 15	5 58	5 42	5 25	5 10	4 53	4 37		50	
1	00	8 52	8 30	8 09	7 48	7 27	7 07	6 48	6 29	6 09	5 51	5 31	1	00	
	10	10 15	9 51	9 27	9 03	8 38	8 15	7 52	7 30	7 09	6 46	6 25		10	
	20	11 38	11 09	10 42	10 15	9 48	9 21	8 56	8 31	8 06	7 42	7 17		20	
	30	12 57	12 26	11 55	11 26	10 56	10 27	9 59	9 30	9 03	8 36	8 09		30	
	40	14 14	13 41	13 07	12 35	12 02	11 31	11 00	10 28	9 58	9 28	8 59		40	
	50	15 30	14 53	14 16	13 41	13 06	12 32	11 58	11 24	10 52	10 19	9 46		50	
2	00	16 42	16 03	15 24	14 46	14 08	13 32	12 55	12 19	11 44	11 09	10 34	2	00	
	10	17 51	17 09	16 28	15 48	15 07	14 28	13 50	13 12	12 34	11 57	11 19		10	
	20	18 57	18 13	17 30	16 48	16 05	15 24	14 43	14 03	13 22	12 43	12 04		20	
	30	20 00	19 14	18 29	17 45	17 00	16 17	15 34	14 52	14 10	13 28	12 47		30	
	40	21 00	20 12	19 26	18 39	17 53	17 08	16 23	15 39	14 54	14 10	13 27		40	
	50	21 57	21 08	20 19	19 31	18 43	17 56	17 09	16 23	15 37	14 51	14 05		50	
3	00	22 50	21 59	21 09	20 20	19 30	18 41	17 54	17 05	16 17	15 30	14 43	3	00	
	10	23 40	22 49	21 58	21 06	20 15	19 25	18 36	17 45	16 56	16 07	15 18		10	
	20	24 29	23 35	22 42	21 50	20 58	20 05	19 14	18 23	17 32	16 42	15 52		20	
	30	25 13	24 17	23 24	22 30	21 36	20 43	19 51	18 58	18 07	17 14	16 23		30	
	40	25 53	24 58	24 02	23 08	22 13	21 18	20 26	19 32	18 39	17 45	16 52		40	
	50	26 31	25 34	24 38	23 43	22 47	21 52	20 57	20 03	19 08	18 14	17 20		50	
4	00	27 05	26 08	25 12	24 15	23 18	22 22	21 27	20 30	19 36	18 40	17 45	4	00	
	10	27 37	26 39	25 42	24 44	23 47	22 50	21 53	20 57	20 00	19 04	18 08		10	
	20	28 05	27 06	26 09	25 10	24 12	23 14	22 18	21 20	20 23	19 26	18 29		20	
	30	28 30	27 31	26 32	25 34	24 36	23 37	22 40	21 41	20 43	19 46	18 48		30	
	40	28 52	27 53	26 54	25 54	24 55	23 57	22 59	21 59	21 01	20 03	19 04		40	
	50	29 12	28 11	27 13	26 13	25 14	24 14	23 15	22 16	21 18	20 18	19 18		50	
5	00	29 28	28 28	27 28	26 28	25 28	24 29	23 30	22 30	21 31	20 32	19 32	5	00	
	10	29 41	28 41	27 41	26 40	25 41	24 41	23 42	22 41	21 42	20 42	19 43		10	
	20	29 51	28 51	27 51	26 51	25 51	24 50	23 51	22 50	21 51	20 51	19 51		20	
	30	29 58	28 58	27 58	26 58	25 57	24 57	23 58	22 57	21 57	20 57	19 56		30	
	40	30 03	29 02	28 02	27 02	26 02	25 02	24 02	23 02	22 02	21 01	20 01		40	
	50	30 04	29 05	28 04	27 04	26 04	25 04	24 04	23 03	22 03	21 03	20 03		50	
6	00	30 04	29 04	28 03	27 03	26 03	25 03	24 04	23 03	22 02	21 03	20 02	6	00	
	10	30 00	29 00	28 00	27 00	26 00	25 00	24 01	23 00	22 01	21 01	20 00		10	
	20	29 53	28 53	27 54	26 54	25 54	24 55	23 55	22 55	21 56	20 56	19 56		20	
	30	29 43	28 43	27 44	26 45	25 46	24 47	23 48	22 48	21 49	20 49	19 50		30	
	40	29 30	28 31	27 32	26 34	25 34	24 35	23 37	22 38	21 39	20 40	19 41		40	
	50	29 16	28 16	27 18	26 20	25 21	24 23	23 25	22 26	21 27	20 28	19 30		50	
7	00	28 57	27 59	27 01	26 03	25 05	24 07	23 10	22 12	21 14	20 16	19 17	7	00	
	10	28 37	27 39	26 41	25 44	24 47	23 49	22 52	21 55	20 58	20 00	19 03		10	
	20	28 13	27 15	26 19	25 22	24 25	23 28	22 33	21 35	20 39	19 42	18 46		20	
	30	27 46	26 50	25 54	24 58	24 02	23 06	22 11	21 14	20 19	19 23	18 27		30	
	40	27 16	26 22	25 26	24 31	23 36	22 41	21 46	20 51	19 56	19 01	18 07		40	
	50	26 45	25 50	24 50	24 01	23 07	22 13	21 19	20 25	19 31	18 38	17 44		50	
8	00	26 10	25 17	24 23	23 30	22 36	21 43	20 50	19 57	19 04	18 12	17 20	8	00	
	10	25 32	24 39	23 47	22 55	22 02	21 11	20 19	19 27	18 36	17 45	17 03		10	
	20	24 51	24 00	23 09	22 18	21 26	20 36	19 46	18 55	18 05	17 15	16 25		20	
	30	24 09	23 19	22 28	21 38	20 48	19 59	19 11	18 20	17 32	16 43	15 55		30	
	40	23 22	22 33	21 45	20 56	20 07	19 20	18 33	17 44	16 57	16 09	15 22		40	
	50	22 34	21 46	20 59	20 11	19 24	18 38	17 52	17 06	16 20	15 35	14 49		50	
9	00	21 42	20 56	20 10	19 24	18 38	17 54	17 09	16 25	15 41	14 57	14 14	9	00	
	10	20 47	20 04	19 19	18 35	17 51	17 08	16 26	15 42	15 01	14 18	13 36		10	
	20	19 50	19 08	18 25	17 43	17 01	16 20	15 40	14 58	14 17	13 37	12 57		20	
	30	18 51	18 10	17 30	16 50	16 10	15 30	14 51	14 13	13 34	12 55	12 17		30	
	40	17 49	17 10	16 31	15 53	15 15	14 38	14 01	13 24	12 48	12 11	11 35		40	
	50	16 44	16 07	15 31	14 55	14 19	13 44	13 09	12 34	12 00	11 26	10 51		50	
10	00	15 38	15 03	14 29	13 54	13 21	12 49	12 16	11 43	11 11	10 39	10 08	10	00	
	10	14 28	13 56	13 24	12 53	12 21	11 51	11 20	10 51	10 21	9 51	9 22		10	
	20	13 16	12 47	12 18	11 48	11 20	10 51	10 24	9 56	9 28	9 01	8 34		20	
	30	12 03	11 36	11 09	10 43	10 17	9 49	9 25	9 00	8 36	8 11	7 46		30	
	40	10 47	10 23	10 00	9 35	9 12	8 49	8 26	8 04	7 41	7 19	6 57		40	
	50	9 31	9 09	8 48	8 27	8 06	7 46	7 25	7 05	6 46	6 27	6 06		50	
11	00	8 12	7 53	7 35	7 17	6 59	6 41	6 24	6 06	5 49	5 32	5 16	11	00	
	10	6 52	6 30	6 21	6 06	5 50	5 36	5 22	5 07	4 52	4 39	4 25		10	
	20	5 32	5 19	5 06	4 54	4 42	4 30	4 18	4 06	3 55	3 43	3 32		20	
	30	4 09	3 59	3 50	3 41	3 32	3 23	3 14	3 06	2 57	2 49	2 39		30	
	40	2 47	2 40	2 34	2 27	2 21	2 16	2 10	2 04	1 58	1 53	1 47		40	
	50	1 23	1 21	1 17	1 14	1 11	1 08	1 05	1 02	0 59	0 56	0 54		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 5°.			DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 5°.		
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.					
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.				
		00	00	00	00	00	00	00	00	00	00	00	00						
	0	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		0				
	10	6 59	6 35	6 15	5 55	5 37	5 22	5 07	4 52	4 39	4 28	4 16	4 05		10				
	20	13 44	13 00	12 19	11 42	11 08	10 36	10 07	9 40	9 15	8 51	8 28	8 07		20				
	30	20 05	19 04	18 06	17 13	16 25	15 40	14 57	14 18	13 42	13 06	12 34	12 03		30				
	40	25 54	24 38	23 28	22 23	21 22	20 25	19 32	18 43	17 56	17 12	16 30	15 50		40				
	50	31 07	29 42	28 23	27 07	25 57	24 52	23 50	22 52	21 56	21 04	20 14	19 28		50				
1	00	35 45	34 14	32 48	31 26	30 09	28 57	27 48	26 43	25 40	24 42	23 46	22 53	1	00				
	10	39 59	38 15	36 45	35 19	33 57	32 40	31 26	30 15	29 08	28 05	27 03	26 04		10				
	20	43 24	41 47	40 15	38 47	37 22	36 01	34 45	33 30	32 19	31 11	30 05	29 04		20				
	30	46 31	44 53	43 21	41 51	40 26	39 03	37 44	36 27	35 14	34 03	32 55	31 48		30				
	40	49 13	47 38	46 05	44 36	43 09	41 46	40 26	39 08	37 53	36 40	35 29	34 21		40				
	50	51 35	50 00	48 30	47 01	45 35	44 12	42 50	41 32	40 16	39 01	37 50	36 40		50				
2	00	53 37	52 06	50 37	49 10	47 45	46 22	45 01	43 43	42 26	41 11	39 58	38 48	2	00				
	10	55 26	53 57	52 30	51 03	49 39	48 18	46 58	45 39	44 23	43 08	41 55	40 43		10				
	20	57 01	55 34	54 09	52 44	51 22	50 02	48 42	47 24	46 09	44 54	43 41	42 30		20				
	30	58 24	56 59	55 37	54 14	52 53	51 34	50 16	48 59	47 44	46 30	45 16	44 06		30				
	40	59 37	58 15	56 54	55 34	54 15	52 57	51 40	50 24	49 10	47 56	46 44	45 32		40				
	50	60 41	59 21	58 02	56 43	55 26	54 10	52 54	51 39	50 26	49 13	48 02	46 51		50				
3	00	61 38	60 19	59 03	57 46	56 29	55 15	54 01	52 47	51 35	50 23	49 12	48 02	3	00				
	10	62 27	61 11	59 56	58 40	57 26	56 12	55 00	53 48	52 37	51 25	50 15	49 06		10				
	20	63 10	61 56	60 43	59 28	58 16	57 04	55 53	54 41	53 31	52 21	51 12	50 03		20				
	30	63 48	62 35	61 23	60 11	59 00	57 50	56 39	55 30	54 20	53 11	52 02	50 55		30				
	40	64 20	63 10	61 59	60 49	59 38	58 29	57 50	56 11	55 03	53 56	52 47	51 40		40				
	50	64 48	63 39	62 30	61 22	60 12	59 04	57 57											

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the **latitude** and **declination** are of **different** **name**, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 5°.				DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 5°.			
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.					
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.				
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00				
	10	3 55	3 46	3 36	3 29	3 20	3 12	3 05	2 58	2 51	2 45	2 38	2 33		10				
	20	7 47	7 29	7 11	6 55	6 38	6 23	6 09	5 54	5 41	5 28	5 16	5 05		20				
	30	11 34	11 07	10 41	10 16	9 53	9 30	9 08	8 48	8 29	8 10	7 52	7 34		30				
	40	15 14	14 39	14 05	13 33	13 02	12 32	12 05	11 39	11 13	10 48	10 25	10 02		40				
	50	18 43	18 01	17 20	16 42	16 05	15 29	14 56	14 23	13 52	13 22	12 53	12 25		50				
1	00	22 02	21 13	20 27	19 43	19 00	18 19	17 40	17 02	16 25	15 51	15 17	14 44	1	00				
	10	25 09	24 15	23 24	22 34	21 47	21 01	20 17	19 35	18 54	18 13	17 35	16 59		10				
	20	28 03	27 05	26 10	25 16	24 24	23 33	22 46	21 59	21 14	20 31	19 48	19 08		20				
	30	30 45	29 45	28 45	27 48	26 52	25 59	25 07	24 17	23 28	22 41	21 56	21 11		30				
	40	33 15	32 11	31 09	30 09	29 11	28 14	27 20	26 26	25 35	24 44	23 56	23 08		40				
	50	35 32	34 26	33 22	32 21	31 20	30 21	29 24	28 27	27 33	26 40	25 49	24 59		50				
2	00	37 38	36 32	35 26	34 22	33 20	32 19	31 19	30 23	29 26	28 31	27 37	26 45	2	00				
	10	39 34	38 26	37 20	36 14	35 11	34 10	33 08	32 08	31 10	30 13	29 17	28 22		10				
	20	41 19	40 11	39 04	37 57	36 52	35 49	34 47	33 46	32 47	31 49	30 51	29 55		20				
	30	42 55	41 46	40 39	39 32	38 27	37 23	36 20	35 19	34 17	33 17	32 19	31 22		30				
	40	44 25	43 14	42 06	40 59	39 53	38 49	37 45	36 42	35 41	34 40	33 40	32 42		40				
	50	45 41	44 33	43 25	42 18	41 12	40 07	39 03	38 00	36 58	35 56	34 56	33 56		50				
3	00	46 53	45 44	44 37	43 30	42 24	41 19	40 14	39 11	38 08	37 07	36 05	35 06	3	00				
	10	47 58	46 50	45 42	44 36	43 30	42 24	41 20	40 17	39 14	38 11	37 10	36 10		10				
	20	48 56	47 48	46 41	45 35	44 29	43 24	42 20	41 16	40 13	39 10	38 08	37 07		20				
	30	49 47	48 41	47 34	46 29	45 23	44 18	43 14	42 10	41 06	40 05	39 03	38 01		30				
	40	50 34	49 28	48 22	47 16	46 11	45 07	44 02	42 59	41 56	40 53	39 51	38 49		40				
	50	51 15	50 09	49 04	47 59	46 54	45 50	44 47	43 43	42 40	41 37	40 35	39 33		50				
4	00	51 51	50 46	49 41	48 37	47 33	46 28	45 25	44 22	43 19	42 17	41 14	40 12	4	00				
	10	52 23	51 19	50 14	49 11	48 07	47 03	46 00	44 57	43 54	42 51	41 50	40 48		10				
	20	52 51	51 46	50 43	49 39	48 36	47 33	46 30	45 28	44 25	43 23	42 21	41 19		20				
	30	53 14	52 11	51 07	50 04	49 02	47 58	46 56	45 54	44 51	43 50	42 48	41 46		30				
	40	53 34	52 31	51 28	50 25	49 23	48 20	47 18	46 15	45 14	44 11	43 10	42 09		40				
	50	53 49	52 47	51 45	50 43	49 40	48 38	47 36	46 35	45 32	44 31	43 30	42 28		50				
5	00	54 01	53 00	51 58	50 56	49 54	48 52	47 51	46 49	45 48	44 47	43 45	42 44	5	00				
	10	54 10	53 08	52 08	51 06	50 05	49 03	48 02	47 00	45 59	44 58	43 57	42 56		10				
	20	54 16	53 15	52 14	51 12	50 12	49 11	48 09	47 08	46 07	45 07	44 06	43 05		20				
	30	54 18	53 18	52 17	51 16	50 15	49 14	48 14	47 13	46 12	45 12	44 11	43 10		30				
	40	54 17	53 17	52 17	51 16	50 16	49 15	48 15	47 14	46 13	45 13	44 13	43 12		40				
	50	54 13	53 14	52 13	51 13	50 12	49 12	48 13	47 12	46 12	45 12	44 11	43 11		50				
6	00	54 07	53 06	52 07	51 06	50 06	49 06	48 07	47 07	46 06	45 07	44 07	43 07	6	00				
	10	53 57	52 56	51 57	50 57	49 58	48 57	47 57	46 58	45 58	44 58	43 59	42 59		10				
	20	53 43	52 44	51 43	50 44	49 45	48 45	47 45	46 47	45 46	44 47	43 48	42 49		20				
	30	53 27	52 27	51 28	50 29	49 29	48 30	47 30	46 32	45 32	44 32	43 32	42 34		30				
	40	53 07	52 08	51 08	50 09	49 11	48 11	47 12	46 13	45 13	44 15	43 15	42 16		40				
	50	52 44	51 45	50 46	49 47	48 48	47 48	46 50	45 51	44 51	43 53	42 54	41 55		50				
7	00	52 18	51 19	50 20	49 21	48 23	47 23	46 25	45 26	44 27	43 29	42 30	41 32	7	00				
	10	51 49	50 51	49 51	48 52	47 54	46 54	45 56	44 57	43 59	43 01	42 02	41 05		10				
	20	51 16	50 17	49 18	48 19	47 21	46 22	45 24	44 25	43 27	42 29	41 31	40 33		20				
	30	50 40	49 42	48 41	47 43	46 45	45 46	44 48	43 50	42 52	41 55	40 57	40 00		30				
	40	50 00	49 01	48 02	47 04	46 05	45 06	44 09	43 11	42 13	41 16	40 18	39 21		40				
	50	49 16	48 17	47 18	46 19	45 22	44 23	43 25	42 28	41 31	40 34	39 37	38 42		50				
8	00	48 28	47 29	46 29	45 31	44 34	43 36	42 38	41 41	40 44	39 48	38 51	37 55	8	00				
	10	47 35	46 36	45 38	44 39	43 42	42 44	41 47	40 50	39 53	38 58	38 02	37 07		10				
	20	46 38	45 40	44 40	43 43	42 46	41 48	40 52	39 55	38 59	38 04	37 09	36 13		20				
	30	45 36	44 38	43 39	42 43	41 45	40 48	39 52	38 56	38 01	37 06	36 11	35 18		30				
	40	44 29	43 31	42 33	41 36	40 40	39 43	38 48	37 53	36 58	36 03	35 10	34 17		40				
	50	43 18	42 20	41 22	40 25	39 29	38 34	37 39	36 44	35 50	34 57	34 04	33 12		50				
9	00	42 00	41 02	40 06	39 10	38 14	37 19	36 25	35 31	34 38	33 46	32 53	32 02	9	00				
	10	40 36	39 39	38 43	37 48	36 53	36 00	35 06	34 14	33 21	32 30	31 39	30 49		10				
	20	39 07	38 11	37 16	36 21	35 28	34 34	33 42	32 51	32 00	31 11	30 21	29 32		20				
	30	37 31	36 36	35 41	34 48	33 56	33 04	32 13	31 23	30 33	29 45	28 57	28 10		30				
	40	35 49	34 54	34 01	33 09	32 18	31 27	30 38	29 49	29 01	28 15	27 29	26 43		40				
	50	33 59	33 06	32 14	31 24	30 35	29 46	28 58	28 11	27 26	26 40	25 56	25 12		50				
10	00	32 02	31 11	30 22	29 32	28 45	27 59	27 13	26 29	25 44	25 00	24 19	23 37	10	00				
	10	29 57	29 09	28 21	27 34	26 50	26 05	25 22	24 39	23 57	23 16	22 37	21 58		10				
	20	27 46	26 59	26 15	25 31	24 47	24 06	23 25	22 45	22 06	21 28	20 50	20 14		20				
	30	25 27	24 43	24 01	23 20	22 40	22 01	21 23	20 46	20 10	19 35	18 59	18 26		30				
	40	23 00	22 20	21 40	21 03	20 26	19 51	19 15	18 41	18 08	17 37	17 04	16 34		40				
	50	20 26	19 50	19 15	18 40	18 07	17 34	17 03	16 33	16 03	15 35	15 06	14 38		50				
11	00	17 46	17 13	16 42	16 11	15 43	15 14	14 47	14 20	13 54	13 29	13 04	12 40	11	00				
	10	14 59	14 31	14 04	13 38	13 14	12 50	12 26	12 03	11 41	11 19	10 58	10 38		10				
	20	12 06	11 43	11 22	11 00	10 40	10 21	10 01	9 43	9 25	9 08	8 50	8 33		20				
	30	9 09	8 52	8 35	8 19	8 04	7 48	7 34	7 20	7 05	6 52	6 40	6 27		30				
	40	6 08	5 57	5 45	5 35	5 24	5 14	5 04	4 54	4 45	4 36	4 28	4 19		40				
	50	3 05	2 59	2 53	2 47	2 43	2 37	2 32	2 28	2 23	2 19	2 14	2 10						

AZIMUTH OR TRUE BEARING.

LATITUDE 5°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 5°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	2 27	2 21	2 17	2 11	2 06	2 01	1 56	1 53	1 48	1 44	1 39	1 35	0	10
0	20	4 53	4 43	4 32	4 21	4 12	4 02	3 53	3 44	3 36	3 27	3 18	3 11	0	20
0	30	7 18	7 02	6 45	6 30	6 16	6 01	5 48	5 35	5 21	5 09	4 57	4 45	0	30
0	40	9 40	9 18	8 58	8 38	8 19	8 00	7 41	7 24	7 07	6 51	6 35	6 18	0	40
0	50	11 58	11 32	11 07	10 42	10 18	9 55	9 33	9 12	8 51	8 30	8 09	7 50	0	50
1	00	14 12	13 42	13 12	12 44	12 16	11 48	11 23	10 57	10 32	10 07	9 43	9 20	1	00
1	10	16 23	15 47	15 14	14 42	14 09	13 39	13 08	12 39	12 10	11 43	11 16	10 48	1	10
1	20	18 28	17 49	17 12	16 35	15 59	15 25	14 52	14 19	13 46	13 15	12 44	12 15	1	20
1	30	20 27	19 45	19 04	18 24	17 45	17 08	16 31	15 55	15 20	14 46	14 12	13 38	1	30
1	40	22 22	21 36	20 53	20 10	19 28	18 46	18 07	17 28	16 50	16 13	15 35	14 59	1	40
1	50	24 10	23 22	22 36	21 49	21 05	20 21	19 39	18 57	18 15	17 35	16 56	16 17	1	50
2	00	25 53	25 03	24 13	23 25	22 38	21 51	21 06	20 21	19 38	18 55	18 13	17 33	2	00
2	10	27 29	26 37	25 46	24 55	24 06	23 17	22 29	21 43	20 56	20 12	19 28	18 44	2	10
2	20	28 59	28 06	27 13	26 20	25 29	24 38	23 49	23 00	22 12	21 25	20 38	19 53	2	20
2	30	30 24	29 29	28 34	27 40	26 47	25 55	25 03	24 13	23 23	22 35	21 46	20 58	2	30
2	40	31 44	30 47	29 50	28 55	28 01	27 07	26 14	25 22	24 30	23 40	22 49	22 00	2	40
2	50	32 57	31 59	31 02	30 05	29 10	28 14	27 20	26 26	25 33	24 41	23 50	22 59	2	50
3	00	34 05	33 06	32 08	31 10	30 13	29 17	28 22	27 27	26 32	25 39	24 46	23 54	3	00
3	10	35 08	34 09	33 10	32 11	31 13	30 16	29 20	28 24	27 28	26 34	25 40	24 45	3	10
3	20	36 07	35 06	34 07	33 07	32 09	31 11	30 13	29 16	28 19	27 24	26 29	25 34	3	20
3	30	37 00	35 59	34 58	33 59	32 59	32 01	31 02	30 05	29 08	28 11	27 14	26 18	3	30
3	40	37 48	36 47	35 46	34 46	33 47	32 47	31 48	30 50	29 52	28 55	27 57	27 00	3	40
3	50	38 32	37 30	36 29	35 28	34 29	33 29	32 30	31 31	30 32	29 34	28 36	27 38	3	50
4	00	39 11	38 09	37 08	36 07	35 07	34 07	33 07	32 08	31 08	30 10	29 11	28 12	4	00
4	10	39 46	38 44	37 43	36 42	35 41	34 41	33 41	32 41	31 41	30 43	29 43	28 44	4	10
4	20	40 17	39 16	38 14	37 13	36 12	35 11	34 12	33 11	32 11	31 12	30 12	29 13	4	20
4	30	40 44	39 42	38 41	37 40	36 39	35 38	34 38	33 38	32 37	31 37	30 37	29 38	4	30
4	40	41 07	40 06	39 05	38 03	37 02	36 01	35 01	34 01	33 00	32 01	31 00	30 00	4	40
4	50	41 27	40 25	39 25	38 23	37 22	36 21	35 21	34 20	33 19	32 19	31 19	30 19	4	50
5	00	41 43	40 42	39 40	38 40	37 38	36 37	35 37	34 36	33 36	32 35	31 35	30 34	5	00
5	10	41 55	40 54	39 54	38 52	37 51	36 51	35 50	34 49	33 49	32 48	31 48	30 47	5	10
5	20	42 04	41 03	40 02	39 01	38 01	37 00	36 00	34 59	33 58	32 58	31 57	30 57	5	20
5	30	42 10	41 09	40 08	39 07	38 07	37 06	36 06	35 05	34 05	33 04	32 04	31 03	5	30
5	40	42 12	41 11	40 10	39 10	38 10	37 10	36 09	35 09	34 08	33 08	32 08	31 08	5	40
5	50	42 11	41 11	40 10	39 10	38 09	37 09	36 09	35 09	34 09	33 09	32 08	31 08	5	50
6	00	42 07	41 07	40 07	39 07	38 07	37 07	36 07	35 06	34 06	33 06	32 06	31 06	6	00
6	10	42 00	41 00	40 00	38 59	37 59	37 00	36 00	35 01	34 00	33 01	32 01	31 01	6	10
6	20	41 49	40 49	39 50	38 49	37 50	36 50	35 51	34 51	33 52	32 53	31 53	30 53	6	20
6	30	41 35	40 36	39 36	38 36	37 37	36 38	35 38	34 40	33 40	32 42	31 42	30 43	6	30
6	40	41 17	40 18	39 19	38 20	37 21	36 22	35 24	34 24	33 25	32 27	31 28	30 29	6	40
6	50	40 57	39 58	38 59	38 01	37 02	36 03	35 05	34 07	33 07	32 10	31 11	30 13	6	50
7	00	40 33	39 35	38 36	37 37	36 39	35 42	34 44	33 45	32 47	31 50	30 51	29 53	7	00
7	10	40 06	39 08	38 10	37 12	36 14	35 16	34 19	33 21	32 24	31 27	30 29	29 31	7	10
7	20	39 36	38 38	37 41	36 43	35 46	34 48	33 51	32 54	31 57	31 00	30 02	29 06	7	20
7	30	39 02	38 05	37 07	36 10	35 13	34 17	33 21	32 23	31 27	30 31	29 35	28 39	7	30
7	40	38 25	37 28	36 31	35 34	34 39	33 42	32 46	31 51	30 54	29 59	29 04	28 08	7	40
7	50	37 44	36 47	35 52	34 55	33 59	33 04	32 09	31 14	30 19	29 25	28 29	27 35	7	50
8	00	36 59	36 03	35 08	34 12	33 17	32 22	31 28	30 34	29 40	28 46	27 52	26 59	8	00
8	10	36 11	35 17	34 21	33 26	32 32	31 38	30 45	29 52	28 58	28 06	27 12	26 20	8	10
8	20	35 19	34 25	33 31	32 36	31 44	30 50	29 58	29 05	28 12	27 22	26 29	25 38	8	20
8	30	34 23	33 30	32 36	31 43	30 51	29 59	29 08	28 16	27 24	26 34	25 43	24 53	8	30
8	40	33 23	32 31	31 38	30 46	29 55	29 04	28 13	27 23	26 33	25 44	24 54	24 05	8	40
8	50	32 20	31 28	30 37	29 46	28 55	28 06	27 17	26 28	25 39	24 51	24 02	23 15	8	50
9	00	31 11	30 21	29 31	28 42	27 52	27 04	26 16	25 28	24 40	23 55	23 07	22 21	9	00
9	10	29 59	29 11	28 22	27 33	26 46	25 59	25 12	24 26	23 40	22 55	22 10	21 25	9	10
9	20	28 43	27 56	27 09	26 22	25 35	24 51	24 06	23 21	22 36	21 53	21 09	20 26	9	20
9	30	27 23	26 37	25 51	25 06	24 22	23 38	22 55	22 12	21 29	20 48	20 07	19 25	9	30
9	40	25 59	25 14	24 30	23 46	23 05	22 22	21 41	21 00	20 20	19 40	19 00	18 21	9	40
9	50	24 30	23 47	23 05	22 24	21 43	21 03	20 25	19 45	19 07	18 29	17 52	17 15	9	50
10	00	22 56	22 16	21 36	20 57	20 19	19 40	19 04	18 27	17 51	17 16	16 40	16 05	10	00
10	10	21 19	20 41	20 03	19 27	18 51	18 15	17 41	17 06	16 33	16 00	15 26	14 54	10	10
10	20	19 38	19 02	18 27	17 54	17 20	16 47	16 15	15 44	15 12	14 41	14 11	13 41	10	20
10	30	17 53	17 20	16 48	16 16	15 46	15 16	14 46	14 17	13 49	13 21	12 52	12 25	10	30
10	40	16 03	15 34	15 05	14 36	14 09	13 42	13 15	12 48	12 21	11 57	11 32	11 07	10	40
10	50	14 12	13 45	13 19	12 54	12 29	12 04	11 41	11 17	10 54	10 32	10 11	9 48	10	50
11	00	12 16	11 53	11 30	11 08	10 47	10 26	10 05	9 44	9 25	9 05	8 46	8 27	11	00
11	10	10 18	9 59	9 40	9 20	9 02	8 44	8 28	8 10	7 53	7 37	7 20	7 05	11	10
11	20	8 17	8 02	7 46	7 31	7 17	7 03	6 48	6 34	6 21	6 07	5 54	5 41	11	20
11	30	6 15	6 03	5 51	5 39	5 29	5 17	5 07	4 56	4 46	4 37	4 26	4 16	11	30
11	40	4 10	4 03	3 55	3 48	3 40	3 32	3 26	3 19	3 11	3 04	2 59	2 52	11	40
11	50	2 05	2 01	1 58	1 54	1 50	1 46	1 43	1 39	1 36	1 33	1 29	1 26	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 5°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 5°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	1	2	3	4	5	6	7	8	9	10	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	1 32	1 28	1 24	1 20	1 17	1 13	1 09	1 07	1 03	1 00	0 57	1	10	
	20	3 03	2 55	2 48	2 40	2 33	2 25	2 19	2 12	2 06	1 59	1 53	2	20	
	30	4 34	4 22	4 11	4 00	3 49	3 39	3 28	3 19	3 08	2 58	2 50	3	30	
	40	6 03	5 48	5 33	5 19	5 04	4 50	4 37	4 24	4 10	3 58	3 45	4	40	
	50	7 31	7 12	6 54	6 36	6 18	6 01	5 45	5 28	5 12	4 56	4 40	5	50	
1	00	8 57	8 36	8 13	7 52	7 32	7 11	6 51	6 32	6 12	5 53	5 34	1	00	
	10	10 22	9 57	9 32	9 08	8 44	8 20	7 57	7 35	7 11	6 50	6 28	1	10	
	20	11 45	11 17	10 49	10 21	9 54	9 27	9 01	8 35	8 10	7 45	7 21	2	20	
	30	13 06	12 34	12 03	11 32	11 02	10 33	10 04	9 35	9 07	8 39	8 12	2	30	
	40	14 24	13 49	13 15	12 42	12 09	11 37	11 05	10 33	10 02	9 32	9 02	2	40	
	50	15 39	15 02	14 25	13 48	13 13	12 39	12 04	11 31	10 57	10 23	9 51	3	50	
2	00	16 52	16 12	15 33	14 54	14 15	13 38	13 02	12 25	11 49	11 13	10 38	2	00	
	10	18 01	17 18	16 37	15 56	15 16	14 36	13 56	13 18	12 39	12 02	11 24	2	10	
	20	19 07	18 23	17 39	16 56	16 13	15 31	14 50	14 09	13 29	12 48	12 09	2	20	
	30	20 11	19 24	18 39	17 53	17 09	16 25	15 41	14 58	14 16	13 33	12 51	2	30	
	40	21 11	20 23	19 35	18 48	18 01	17 16	16 30	15 45	15 00	14 16	13 32	2	40	
	50	22 08	21 18	20 29	19 39	18 52	18 03	17 16	16 29	15 42	14 56	14 11	3	50	
3	00	23 01	22 10	21 19	20 29	19 39	18 50	18 00	17 12	16 23	15 35	14 48	3	00	
	10	24 52	23 59	22 07	21 15	20 23	19 32	18 42	17 52	17 02	16 12	15 24	3	10	
	20	26 39	25 45	23 52	22 58	21 05	20 13	19 21	18 30	17 38	16 47	15 57	3	20	
	30	28 23	27 28	25 32	24 38	22 44	21 51	20 58	19 05	18 12	17 20	16 28	3	30	
	40	29 03	28 07	26 12	25 16	23 21	22 27	21 32	20 38	19 44	18 50	18 02	3	40	
	50	29 41	28 44	26 47	25 50	23 55	22 59	21 03	20 09	19 13	18 18	17 25	4	50	
4	00	27 14	26 17	25 19	24 22	23 26	22 28	21 32	20 36	19 41	18 44	17 50	4	00	
	10	28 36	27 40	26 43	25 45	24 51	23 54	22 56	21 59	21 02	20 05	19 09	4	10	
	20	29 13	28 15	27 16	26 16	25 17	24 19	23 21	22 23	21 26	20 28	19 30	4	20	
	30	29 38	28 39	27 39	26 39	25 41	24 42	23 43	22 44	21 46	20 48	19 50	4	30	
	40	29 00	28 00	27 00	26 01	25 02	24 02	23 03	22 03	21 06	20 07	19 08	4	40	
	50	29 18	28 18	27 19	26 18	25 19	24 19	23 19	22 21	21 22	20 22	19 23	4	50	
5	00	29 34	28 33	27 33	26 33	25 34	24 33	23 33	22 34	21 34	20 35	19 35	5	00	
	10	29 46	28 46	27 46	26 45	25 45	24 45	23 45	22 46	21 45	20 45	19 46	5	10	
	20	29 55	28 55	27 55	26 55	25 55	24 54	23 54	22 54	21 54	20 54	19 54	5	20	
	30	30 02	29 02	28 01	27 01	26 01	25 01	24 00	23 01	22 00	20 59	19 59	5	30	
	40	30 07	29 06	28 06	27 05	26 05	25 04	24 04	23 04	22 04	21 04	20 03	5	40	
	50	30 08	29 07	28 07	27 07	26 07	25 06	24 05	23 06	22 05	21 05	20 05	5	50	
6	00	30 06	29 06	28 05	27 05	26 06	25 05	24 05	23 05	22 05	21 04	20 05	6	00	
	10	30 01	29 01	28 01	27 01	26 01	25 01	24 01	23 02	22 02	21 02	20 02	6	10	
	20	29 53	28 54	27 55	26 55	25 55	24 55	23 56	22 57	21 56	20 57	19 58	6	20	
	30	29 43	28 44	27 45	26 45	25 46	24 46	23 47	22 49	21 49	20 49	19 51	6	30	
	40	29 30	28 31	27 32	26 33	25 35	24 36	23 36	22 39	21 40	20 40	19 42	6	40	
	50	29 14	28 15	27 17	26 18	25 21	24 22	23 23	22 26	21 27	20 29	19 31	6	50	
7	00	28 56	27 57	27 00	26 02	25 04	24 06	23 08	22 11	21 13	20 15	19 18	7	00	
	10	28 34	27 36	26 39	25 42	24 46	23 47	22 50	21 54	20 56	19 59	19 03	7	10	
	20	28 10	27 13	26 16	25 20	24 24	23 27	22 30	21 35	20 38	19 42	18 46	7	20	
	30	27 42	26 47	25 50	24 55	24 00	23 04	22 08	21 14	20 17	19 21	18 27	7	30	
	40	27 13	26 17	25 23	24 28	23 34	22 38	21 43	20 50	19 54	19 00	18 06	7	40	
	50	26 40	25 46	24 52	23 58	23 04	22 10	21 17	20 24	19 29	18 36	17 43	7	50	
8	00	26 05	25 12	24 18	23 26	22 33	21 40	20 47	19 55	19 03	18 10	17 18	8	00	
	10	25 27	24 35	23 42	22 51	21 59	21 07	20 16	19 25	18 33	17 42	16 51	8	10	
	20	24 46	23 55	23 04	22 13	21 23	20 32	19 42	18 53	18 02	17 13	16 23	8	20	
	30	24 02	23 12	22 22	21 34	20 44	19 55	19 06	18 18	17 30	16 41	15 53	8	30	
	40	23 16	22 27	21 40	20 51	20 04	19 15	18 28	17 41	16 54	16 06	15 20	8	40	
	50	22 27	21 40	20 53	20 06	19 20	18 34	17 48	17 02	16 17	15 31	14 46	8	50	
9	00	21 35	20 50	20 04	19 19	18 35	17 50	17 05	16 22	15 37	14 54	14 11	9	00	
	10	20 41	19 57	19 13	18 29	17 47	17 04	16 21	15 39	14 57	14 15	13 34	9	10	
	20	19 44	19 02	18 20	17 38	16 57	16 15	15 35	14 55	14 14	13 34	12 55	9	20	
	30	18 44	18 03	17 24	16 44	16 05	15 26	14 47	14 08	13 30	12 52	12 14	9	30	
	40	17 42	17 03	16 25	15 48	15 11	14 33	13 57	13 21	12 44	12 08	11 33	9	40	
	50	16 38	16 01	15 26	14 50	14 15	13 40	13 05	12 31	11 57	11 22	10 49	9	50	
10	00	15 31	14 57	14 23	13 50	13 17	12 45	12 12	11 40	11 08	10 36	10 05	10	00	
	10	14 22	13 50	13 19	12 47	12 17	11 46	11 17	10 47	10 18	9 48	9 20	10	10	
	20	13 11	12 42	12 13	11 46	11 17	10 50	10 22	9 55	9 27	8 59	8 33	10	20	
	30	11 58	11 31	11 05	10 39	10 13	9 47	9 23	8 58	8 33	8 08	7 45	10	30	
	40	10 43	10 19	9 55	9 32	9 09	8 45	8 24	8 01	7 39	7 17	6 55	10	40	
	50	9 26	9 06	8 44	8 23	8 03	7 43	7 23	7 03	6 44	6 24	6 05	10	50	
11	00	8 09	7 50	7 32	7 14	6 56	6 38	6 21	6 05	5 47	5 30	5 14	11	00	
	10	6 49	6 34	6 19	6 03	5 48	5 33	5 20	5 06	4 51	4 37	4 23	11	10	
	20	5 32	5 16	5 04	4 51	4 40	4 28	4 17	4 05	3 54	3 43	3 32	11	20	
	30	4 08	3 58	3 48	3 39	3 30	3 21	3 13	3 05	2 56	2 48	2 38	11	30	
	40	2 45	2 39	2 33	2 26	2 20	2 14	2 08	2 04	1 57	1 51	1 45	11	40	
	50	1 23	1 20	1 16	1 13	1 10	1 07	1 04	1 01	0 58	0 55	0 53	11	50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 6°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 6°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	7 20	6 55	6 32	6 11	5 52	5 35	5 19	5 04	4 49	4 37	4 25	4 13	1	10
0	20	14 26	13 38	12 53	12 13	11 37	11 02	10 31	10 02	9 34	9 08	8 44	8 23	2	20
0	30	21 03	19 55	18 53	17 56	17 04	16 15	15 39	14 48	14 09	13 32	12 58	12 26	3	30
0	40	27 04	25 43	24 26	23 16	22 12	21 11	20 14	19 21	18 32	17 44	17 00	16 20	4	40
0	50	32 25	30 54	29 28	28 08	26 54	25 44	24 37	23 36	22 37	21 42	20 50	20 01	5	50
1	00	37 07	35 30	33 58	32 32	31 10	29 53	28 40	27 32	26 26	25 24	24 26	23 30	1	00
1	10	41 13	39 34	37 58	36 27	35 01	33 40	32 22	31 08	29 57	28 50	27 46	26 45	2	10
1	20	44 47	43 06	41 28	39 56	38 28	37 02	35 42	34 24	33 11	31 59	30 51	29 45	3	20
1	30	47 52	46 11	44 34	43 01	41 32	40 04	38 42	37 23	36 06	34 52	33 40	32 32	4	30
1	40	50 32	48 53	47 16	45 43	44 14	42 48	41 24	40 04	38 45	37 29	36 16	35 05	5	40
1	50	52 50	51 12	49 38	48 06	46 38	45 11	43 45	42 27	41 08	39 51	38 36	37 25	12	50
2	00	54 50	53 16	51 44	50 13	48 46	47 20	45 57	44 36	43 17	42 00	40 45	39 32	2	00
2	10	56 34	55 02	53 32	52 04	50 38	49 14	47 52	46 31	45 13	43 56	42 41	41 28	3	10
2	20	58 06	56 36	55 08	53 42	52 18	50 56	49 35	48 15	46 57	45 40	44 26	43 12	4	20
2	30	59 25	57 58	56 32	55 09	53 47	52 25	51 06	49 47	48 31	47 14	46 00	44 47	5	30
2	40	60 34	59 10	57 47	56 25	55 05	53 46	52 27	51 10	49 54	48 39	47 25	46 12	12	40
2	50	61 34	60 13	58 52	57 33	56 14	54 56	53 39	52 24	51 09	49 54	48 41	47 30	12	50
3	00	62 27	61 08	59 49	58 32	57 15	55 58	54 43	53 29	52 14	51 01	49 50	48 39	3	00
3	10	63 13	61 56	60 40	59 23	58 08	56 54	55 40	54 27	53 14	52 02	50 51	49 40	4	10
3	20	63 53	62 38	61 23	60 09	58 56	57 42	56 30	55 18	54 07	52 55	51 46	50 37	5	20
3	30	64 27	63 14	62 02	60 49	59 37	58 26	57 14	56 04	54 54	53 44	52 34	51 25	12	30
3	40	64 57	63 45	62 35	61 23	60 13	59 02	57 53	56 44	55 34	54 25	53 17	52 09	12	40
3	50	65 22	64 13	63 02	61 53	60 44	59 35	58 26	57 18	56 10	55 02	53 55	52 47	12	50
4	00	65 44	64 35	63 26	62 18	61 11	60 02	58 55	57 48	56 41	55 34	54 28	53 21	4	00
4	10	66 01	64 54	63 47	62 40	61 33	60 26	59 20	58 15	57 08	56 02	54 56	53 51	5	10
4	20	66 15	65 09	64 04	62 58	61 52	60 46	59 41	58 37	57 30	56 25	55 21	54 16	12	20
4	30	66 26	65 21	64 17	63 12	62 07	61 02	59 58	58 54	57 49	56 45	55 41	54 37	12	30
4	40	66 35	65 31	64 27	63 23	62 19	61 15	60 12	59 08	58 04	57 00	55 57	54 53	12	40
4	50	66 41	65 37	64 33	63 31	62 27	61 24	60 22	59 19	58 15	57 12	56 10	55 07	12	50
5	00	66 43	65 40	64 38	63 35	62 33	61 30	60 28	59 26	58 23	57 22	56 19	55 17	5	00
5	10	66 43	65 41	64 40	63 37	62 35	61 34	60 32	59 31	58 28	57 27	56 25	55 24	12	10
5	20	66 40	65 40	64 38	63 37	62 35	61 34	60 33	59 32	58 30	57 29	56 27	55 27	12	20
5	30	66 35	65 35	64 35	63 33	62 33	61 31	60 31	59 31	58 29	57 29	56 27	55 27	12	30
5	40	66 29	65 28	64 28	63 28	62 27	61 27	60 26	59 26	58 26	57 24	56 24	55 24	12	40
5	50	66 19	65 19	64 19	63 19	62 19	61 19	60 18	59 18	58 18	57 18	56 18	55 18	12	50
6	00	66 07	65 07	64 07	63 08	62 08	61 08	60 08	59 09	58 09	57 08	56 09	55 09	6	00
6	10	65 52	64 53	63 53	62 54	61 54	60 55	59 55	58 56	57 55	56 56	55 56	54 57	12	10
6	20	65 35	64 37	63 37	62 38	61 38	60 37	59 39	58 39	57 40	56 41	55 41	54 42	12	20
6	30	65 15	64 17	63 18	62 18	61 18	60 20	59 18	58 21	57 22	56 22	55 23	54 23	12	30
6	40	64 56	63 55	62 56	61 56	60 57	59 58	58 58	58 00	57 00	56 01	55 02	54 03	12	40
6	50	64 31	63 31	62 32	61 32	60 32	59 33	58 34	57 34	56 35	55 35	54 37	53 37	12	50
7	00	64 04	63 04	62 04	61 04	60 05	59 05	58 06	57 08	56 07	55 08	54 09	53 11	7	00
7	10	63 34	62 34	61 34	60 34	59 34	58 34	57 35	56 36	55 36	54 36	53 38	52 39	12	10
7	20	63 01	62 01	61 00	60 00	59 00	58 00	57 01	56 01	55 02	54 03	53 03	52 05	12	20
7	30	62 24	61 24	60 24	59 24	58 22	57 23	56 23	55 24	54 24	53 24	52 25	51 26	12	30
7	40	61 45	60 44	59 43	58 43	57 42	56 42	55 41	54 42	53 43	52 43	51 44	50 45	12	40
7	50	61 02	60 00	59 00	57 58	56 58	55 57	54 57	53 57	52 57	51 57	50 58	49 59	12	50
8	00	60 15	59 12	58 11	57 09	56 09	55 08	54 07	53 07	52 07	51 08	50 08	49 10	8	00
8	10	59 23	58 21	57 19	56 17	55 15	54 14	53 14	52 13	51 14	50 14	49 15	48 15	12	10
8	20	58 28	57 24	56 22	55 20	54 17	53 16	52 16	51 15	50 14	49 15	48 16	47 17	12	20
8	30	57 27	56 23	55 20	54 18	53 15	52 14	51 12	50 12	49 11	48 11	47 13	46 13	12	30
8	40	56 21	55 17	54 13	53 10	52 07	51 05	50 04	49 04	48 03	47 03	46 04	45 05	12	40
8	50	55 09	54 04	53 00	51 56	50 53	49 52	48 49	47 49	46 49	45 49	44 50	43 52	12	50
9	00	53 51	52 45	51 40	50 37	49 34	48 31	47 30	46 29	45 28	44 30	43 31	42 33	9	00
9	10	52 25	51 19	50 15	49 10	48 07	47 05	46 03	45 03	44 03	43 04	42 05	41 08	12	10
9	20	50 53	49 46	48 41	47 36	46 33	45 31	44 30	43 29	42 30	41 31	40 34	39 38	12	20
9	30	49 11	48 04	46 59	45 55	44 52	43 49	42 48	41 49	40 50	39 53	38 55	38 00	12	30
9	40	47 21	46 14	45 09	44 05	43 02	42 01	40 59	40 01	39 03	38 06	37 11	36 15	12	40
9	50	45 21	44 14	43 09	42 06	41 03	40 03	39 03	38 05	37 08	36 12	35 17	34 25	12	50
10	00	43 09	42 03	41 00	39 56	38 55	37 56	36 57	36 00	35 05	34 10	33 17	32 26	10	00
10	10	40 46	39 41	38 38	37 36	36 36	35 38	34 41	33 46	32 53	32 01	31 10	30 19	12	10
10	20	38 11	37 08	36 05	35 06	34 08	33 12	32 17	31 24	30 33	29 42	28 54	28 06	12	20
10	30	35 21	34 20	33 21	32 24	31 28	30 34	29 43	28 53	28 03	27 16	26 30	25 45	12	30
10	40	32 18	31 19	30 24	29 29	28 36	27 46	26 58	26 11	25 25	24 41	23 58	23 17	12	40
10	50	29 00	28 05	27 13	26 23	25 34	24 47	24 03	23 19	22 38	21 58	21 19	20 42	12	50
11	00	25 27	24 37	23 50	23 04	22 21	21 39	20 58	20 20	19 42	19 07	18 33	17 59	11	00
11	10	21 40	20 57	20 14	19 34	18 56	18 20	17 45	17 11	16 39	16 09	15 39	15 11	12	10
11	20	17 39	17 02	16 28	15 54	15 22	14 52	14 23	13 55	13 28	13 04	12 39	12 16	12	20
11	30	13 26	12 57	12 30	12 04	11 40	11 16	10 54	10 33	10 12	9 52	9 34	9 16	12	30
11	40	9 04	8 43	8 25	8 07	7 50	7 35	7 19	7 05	6 51	6 38	6 25	6 13	12	40
11	50	4 34	4 23	4 14	4 05	3 56	3 48	3 41	3 33	3 26	3 19	3 14	3 07	12	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 6°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 6°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
		00	00	00	00	00	00	00	00	00	00	00	00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	4 02	3 52	3 43	3 34	3 25	3 18	3 09	3 02	2 55	2 49	2 42	2 36	0	10
0	20	8 02	7 41	7 22	7 05	6 49	6 33	6 17	6 02	5 49	5 35	5 23	5 11	0	20
0	30	11 55	11 25	10 58	10 32	10 08	9 44	9 22	9 01	8 39	8 20	8 01	7 42	0	30
0	40	15 39	15 03	14 27	13 53	13 21	12 50	13 21	11 54	11 27	11 02	10 37	10 13	0	40
0	50	19 13	18 29	17 47	17 07	16 28	15 51	15 15	14 42	14 10	13 38	13 08	12 39	0	50
1	00	22 36	21 45	20 57	20 11	19 26	18 44	18 03	17 24	16 46	16 10	15 34	15 01	1	00
1	10	25 46	24 50	23 56	23 05	22 15	21 28	20 42	19 58	19 16	18 35	17 55	17 16	1	10
1	20	28 42	27 43	26 44	25 48	24 55	24 03	23 13	22 25	21 39	20 53	20 10	19 27	1	20
1	30	31 27	30 22	29 21	28 22	27 24	26 30	25 35	24 44	23 54	23 05	22 18	21 32	1	30
1	40	33 57	32 51	31 47	30 45	29 44	28 46	27 49	26 55	26 02	25 10	24 19	23 30	1	40
1	50	36 15	35 07	34 01	32 56	31 53	30 54	29 55	28 57	28 02	27 06	26 13	25 22	1	50
2	00	38 21	37 12	36 04	34 59	33 54	32 52	31 51	30 51	29 54	28 57	28 02	27 08	2	00
2	10	40 16	39 06	37 57	36 51	35 45	34 41	33 39	32 37	31 39	30 40	29 42	28 47	2	10
2	20	42 01	40 50	39 41	38 33	37 27	36 22	35 18	34 16	33 16	32 15	31 17	30 20	2	20
2	30	43 35	42 25	41 16	40 07	39 00	37 55	36 50	35 47	34 45	33 44	32 44	31 46	2	30
2	40	45 01	43 50	42 42	41 33	40 25	39 20	38 15	37 11	36 09	35 07	34 06	33 06	2	40
2	50	46 18	45 08	43 59	42 51	41 43	40 38	39 33	38 28	37 25	36 22	35 20	34 19	2	50
3	00	47 28	46 19	45 10	44 02	42 55	41 49	40 43	39 38	38 35	37 31	36 29	35 28	3	00
3	10	48 31	47 22	46 14	45 06	43 59	42 54	41 48	40 43	39 40	38 35	37 33	36 31	3	10
3	20	49 27	48 19	47 11	46 03	44 57	43 51	42 45	41 41	40 38	39 34	38 31	37 29	3	20
3	30	50 17	49 10	48 02	46 56	45 49	44 44	43 38	42 34	41 30	40 26	39 24	38 21	3	30
3	40	51 02	49 55	48 48	47 42	46 36	45 31	44 26	43 22	42 18	41 15	40 11	39 08	3	40
3	50	51 42	50 35	49 29	48 23	47 18	46 13	45 08	44 04	43 00	41 57	40 54	39 51	3	50
4	00	52 16	51 10	50 04	49 00	47 55	46 50	45 46	44 42	43 39	42 35	41 32	40 30	4	00
4	10	52 46	51 40	50 36	49 31	48 26	47 23	46 19	45 15	44 12	43 08	42 06	41 04	4	10
4	20	53 11	52 07	51 02	49 58	48 55	47 51	46 48	45 44	44 42	43 39	42 36	41 33	4	20
4	30	53 33	52 28	51 25	50 22	49 19	48 16	47 12	46 09	45 06	44 04	43 01	42 00	4	30
4	40	53 50	52 47	51 44	50 41	49 38	48 35	47 33	46 30	45 28	44 25	43 24	42 21	4	40
4	50	54 04	53 01	51 59	50 56	49 54	48 51	47 50	46 48	45 46	44 43	43 41	42 40	4	50
5	00	54 15	53 13	52 11	51 08	50 06	49 05	48 03	47 01	45 59	44 57	43 55	42 54	5	00
5	10	54 22	53 20	52 19	51 17	50 16	49 14	48 12	47 11	46 09	45 08	44 07	43 05	5	10
5	20	54 26	53 24	52 23	51 22	50 21	49 19	48 18	47 17	46 17	45 15	44 14	43 13	5	20
5	30	54 27	53 25	52 25	51 24	50 23	49 22	48 20	47 20	46 20	45 18	44 18	43 17	5	30
5	40	54 28	53 26	52 25	51 22	50 21	49 21	48 20	47 20	46 20	45 18	44 18	43 18	5	40
5	50	54 18	53 18	52 17	51 18	50 17	49 17	48 16	47 16	46 17	45 15	44 15	43 15	5	50
6	00	54 09	53 09	52 08	51 10	50 10	49 10	48 10	47 09	46 10	45 09	44 10	43 10	6	00
6	10	53 06	52 06	51 05	50 08	49 08	48 09	47 09	46 09	45 09	44 09	43 09	42 08	6	10
6	20	53 43	52 43	51 44	50 44	49 44	48 45	47 45	46 45	45 45	44 47	43 48	42 48	6	20
6	30	53 24	52 25	51 25	50 27	49 27	48 28	47 29	46 30	45 31	44 31	43 33	42 33	6	30
6	40	53 03	52 04	51 05	50 06	49 07	48 08	47 09	46 10	45 12	44 12	43 13	42 13	6	40
6	50	52 38	51 40	50 41	49 42	48 43	47 44	46 46	45 47	44 48	43 49	42 51	41 52	6	50
7	00	52 11	51 12	50 13	49 15	48 16	47 18	46 19	45 21	44 22	43 23	42 25	41 26	7	00
7	10	51 39	50 42	49 43	48 44	47 46	46 47	45 49	44 50	43 53	42 55	41 57	40 58	7	10
7	20	51 06	50 07	49 09	48 10	47 12	46 13	45 15	44 18	43 20	42 22	41 25	40 26	7	20
7	30	50 27	49 29	48 31	47 33	46 34	45 37	44 39	43 41	42 44	41 46	40 49	39 51	7	30
7	40	49 46	48 48	47 50	46 51	45 54	44 55	43 58	43 00	42 04	41 07	40 09	39 12	7	40
7	50	49 01	48 02	47 03	46 06	45 08	44 11	43 14	42 17	41 20	40 24	39 27	38 30	7	50
8	00	48 10	47 12	46 14	45 17	44 20	43 22	42 25	41 29	40 32	39 36	38 41	37 44	8	00
8	10	47 17	46 19	45 21	44 24	43 26	42 28	41 33	40 37	39 41	38 45	37 50	36 54	8	10
8	20	46 18	45 21	44 23	43 25	42 29	41 33	40 37	39 41	38 46	37 50	36 56	36 02	8	20
8	30	45 08	44 17	43 21	42 24	41 27	40 31	39 36	38 41	37 46	36 52	35 58	35 04	8	30
8	40	44 16	43 10	42 14	41 16	40 21	39 25	38 31	37 37	36 42	35 49	34 56	34 03	8	40
8	50	42 55	41 58	41 01	40 06	39 10	38 15	37 21	36 28	35 34	34 41	33 50	32 57	8	50
9	00	41 36	40 39	39 43	38 49	37 53	37 00	36 06	35 14	34 22	33 29	32 39	31 48	9	00
9	10	40 12	39 16	38 20	37 26	36 33	35 39	34 47	33 56	33 05	32 14	31 24	30 34	9	10
9	20	38 41	37 46	36 52	35 59	35 06	34 14	33 23	32 33	31 43	30 53	30 05	29 16	9	20
9	30	37 04	36 11	35 17	34 26	33 34	32 43	31 53	31 05	30 16	29 28	28 41	27 55	9	30
9	40	35 21	34 29	33 37	32 46	31 56	31 07	30 19	29 32	28 44	27 58	27 13	26 28	9	40
9	50	33 32	32 41	31 50	31 01	30 13	29 25	28 39	27 53	27 08	26 24	25 40	24 57	9	50
10	00	31 35	30 46	29 58	29 10	28 24	27 38	26 53	26 10	25 27	24 44	24 04	23 23	10	00
10	10	29 31	28 44	27 57	27 13	26 28	25 45	25 03	24 21	23 41	23 01	22 22	21 43	10	10
10	20	27 21	26 35	25 52	25 09	24 27	23 47	23 07	22 28	21 50	21 13	20 36	20 00	10	20
10	30	25 03	24 21	23 39	23 00	22 21	21 43	21 06	20 30	19 55	19 20	18 46	18 13	10	30
10	40	22 37	21 58	21 20	20 44	20 08	19 33	18 59	18 27	17 55	17 22	16 52	16 22	10	40
10	50	20 05	19 30	18 56	18 22	17 51	17 20	16 49	16 20	15 50	15 22	14 55	14 27	10	50
11	00	17 27	16 55	16 26	15 56	15 27	15 01	14 34	14 07	13 43	13 18	12 54	12 30	11	00
11	10	14 43	14 16	13 50	13 25	13 00	12 38	12 15	11 53	11 31	11 10	10 50	10 30	11	10
11	20	11 53	11 31	11 10	10 50	10 29	10 10	9 52	9 34	9 17	9 00	8 43	8 27	11	20
11	30	8 59	8 42	8 26	8 11	7 55	7 41	7 27	7 13	7 00	6 47	6 34	6 22	11	30
11	40	6 01	5 50	5 38	5 29	5 18	5 09	4 59	4 50	4 41	4 32	4 24	4 15	11	40
11	50	3 01	2 55	2 50	2 45	2 39	2 34	2 30	2 25	2 21	2 16	2 12	2 08	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 6°.			DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 6°.		
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.					
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.				
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00				
	10	2 30	2 24	2 19	2 13	2 08	2 04	1 59	1 54	1 49	1 45	1 41	1 37	1	10				
	20	4 59	4 48	4 36	4 26	4 16	4 06	3 57	3 47	3 39	3 30	3 22	3 13	2	20				
	30	7 25	7 09	6 53	6 38	6 22	6 08	5 54	5 39	5 26	5 14	5 01	4 49	3	30				
	40	9 50	9 28	9 07	8 47	8 27	8 08	7 48	7 30	7 13	6 56	6 39	6 23	4	40				
	50	12 11	11 44	11 18	10 53	10 28	10 05	9 42	9 19	8 58	8 36	8 16	7 56	5	50				
1	00	14 28	13 56	13 25	12 56	12 27	11 59	11 32	11 06	10 40	10 16	9 51	9 27	1	00				
	10	16 40	16 04	15 29	14 55	14 23	13 51	13 20	12 50	12 20	11 51	11 24	10 56	2	10				
	20	18 46	18 06	17 28	16 51	16 14	15 39	15 04	14 30	13 58	13 25	12 54	12 23	3	20				
	30	20 48	20 04	19 22	18 41	18 01	17 22	16 44	16 07	15 32	14 56	14 22	13 47	4	30				
	40	22 43	21 56	21 11	20 27	19 43	19 02	18 21	17 41	17 02	16 23	15 46	15 09	5	40				
	50	24 32	23 43	22 54	22 08	21 21	20 37	19 53	19 11	18 29	17 47	17 08	16 28	6	50				
2	00	26 16	25 24	24 32	23 44	22 55	22 08	21 21	20 36	19 53	19 08	18 25	17 44	2	00				
	10	27 52	26 58	26 05	25 14	24 23	23 34	22 45	21 58	21 12	20 25	19 40	18 56	3	10				
	20	29 22	28 26	27 33	26 39	25 46	24 56	24 05	23 16	22 27	21 38	20 51	20 04	4	20				
	30	30 48	29 50	28 55	27 59	27 06	26 12	25 19	24 29	23 38	22 48	21 59	21 10	5	30				
	40	32 07	31 08	30 11	29 15	28 19	27 25	26 30	25 37	24 45	23 53	23 02	22 12	6	40				
	50	33 20	32 20	31 22	30 25	29 27	28 31	27 36	26 42	25 48	24 55	24 02	23 11	7	50				
3	00	34 28	33 27	32 27	31 29	30 32	29 35	28 38	27 42	26 47	25 53	24 59	24 05	3	00				
	10	35 29	34 29	33 28	32 30	31 31	30 33	29 35	28 39	27 43	26 47	25 51	24 57	4	10				
	20	36 27	35 25	34 25	33 25	32 26	31 27	30 29	29 31	28 35	27 38	26 41	25 46	5	20				
	30	37 19	36 17	35 16	34 16	33 15	32 16	31 18	30 19	29 22	28 24	27 26	26 29	6	30				
	40	38 07	37 04	36 03	35 02	34 02	33 02	32 03	31 03	30 05	29 07	28 08	27 11	7	40				
	50	38 49	37 47	36 46	35 45	34 43	33 43	32 43	31 44	30 45	29 46	28 47	27 48	8	50				
4	00	39 27	38 25	37 24	36 22	35 21	34 21	33 20	32 20	31 20	30 21	29 22	28 23	4	00				
	10	40 02	38 59	37 57	36 56	35 54	34 54	33 53	32 53	31 53	30 54	29 54	28 54	5	10				
	20	40 31	39 29	38 27	37 26	36 25	35 24	34 22	33 22	32 22	31 21	30 22	29 21	6	20				
	30	40 57	39 54	38 54	37 53	36 51	35 50	34 49	33 48	32 48	31 46	30 46	29 47	7	30				
	40	41 20	40 17	39 16	38 14	37 12	36 12	35 11	34 10	33 09	32 08	31 08	30 07	8	40				
	50	41 38	40 35	39 34	38 33	37 32	36 31	35 29	34 29	33 28	32 27	31 27	30 26	9	50				
5	00	41 52	40 51	39 49	38 49	37 47	36 47	35 45	34 44	33 44	32 42	31 42	30 41	5	00				
	10	42 04	41 02	40 01	39 00	37 59	36 58	35 57	34 56	33 55	32 55	31 54	30 53	6	10				
	20	42 11	41 11	40 09	39 08	38 07	37 07	36 06	35 05	34 05	33 04	32 03	31 02	7	20				
	30	42 17	41 15	40 15	39 14	38 12	37 12	36 11	35 10	34 10	33 09	32 09	31 08	8	30				
	40	42 17	41 17	40 16	39 15	38 14	37 14	36 14	35 13	34 13	33 12	32 11	31 11	9	40				
	50	42 16	41 15	40 14	39 14	38 14	37 13	36 13	35 12	34 13	33 12	32 12	31 11	10	50				
6	00	42 09	41 10	40 09	39 09	38 08	37 09	36 08	35 09	34 09	33 09	32 09	31 08	6	00				
	10	42 01	41 01	40 01	39 01	38 02	37 02	36 01	35 02	34 02	33 02	32 02	31 02	7	10				
	20	41 49	40 49	39 50	38 51	37 51	36 51	35 52	34 52	33 53	32 53	31 54	30 54	8	20				
	30	41 34	40 35	39 35	38 36	37 37	36 39	35 39	34 40	33 41	32 42	31 43	30 43	9	30				
	40	41 16	40 17	39 18	38 19	37 20	36 21	35 22	34 24	33 26	32 26	31 28	30 29	10	40				
	50	40 55	39 55	38 57	37 58	36 59	36 02	35 03	34 05	33 07	32 08	31 10	30 12	11	50				
7	00	40 30	39 31	38 33	37 34	36 37	35 39	34 41	33 43	32 46	31 47	30 50	29 51	7	00				
	10	40 01	39 03	38 05	37 08	36 10	35 13	34 15	33 18	32 21	31 23	30 27	29 29	8	10				
	20	39 29	38 32	37 35	36 38	35 41	34 44	33 47	32 50	31 53	30 57	30 00	29 03	9	20				
	30	38 56	37 58	37 01	36 05	35 08	34 12	33 15	32 19	31 23	30 27	29 32	28 36	10	30				
	40	38 17	37 20	36 24	35 28	34 32	33 37	32 40	31 45	30 50	29 54	28 59	28 04	11	40				
	50	37 35	36 39	35 44	34 48	33 53	32 58	32 02	31 08	30 14	29 19	28 25	27 31	12	50				
8	00	36 50	35 54	34 59	34 04	33 09	32 15	31 21	30 27	29 34	28 40	27 47	26 54	8	00				
	10	36 00	35 06	34 12	33 18	32 24	31 30	30 37	29 43	28 52	27 59	27 07	26 14	9	10				
	20	35 08	34 14	33 21	32 27	31 34	30 42	29 50	28 57	28 06	27 14	26 23	25 32	10	20				
	30	34 12	33 18	32 26	31 33	30 41	29 50	28 59	28 08	27 17	26 27	25 37	24 47	11	30				
	40	33 11	32 19	31 27	30 36	29 45	28 55	28 05	27 15	26 26	25 36	24 48	23 58	12	40				
	50	32 07	31 16	30 25	29 45	28 46	27 56	27 07	26 19	25 31	24 42	23 55	23 08	13	50				
9	00	30 59	30 08	29 19	28 31	27 42	26 54	26 06	25 20	24 33	23 46	23 00	22 14	9	00				
	10	29 46	28 57	28 10	27 21	26 35	25 49	25 02	24 17	23 32	22 47	22 03	21 18	10	10				
	20	28 29	27 43	26 56	26 10	25 25	24 40	23 55	23 12	22 29	21 45	21 03	20 20	11	20				
	30	27 09	26 23	25 39	24 54	24 11	23 28	22 44	22 03	21 21	20 39	19 59	19 18	12	30				
	40	25 44	25 01	24 18	23 35	22 53	22 12	21 33	20 51	20 11	19 31	18 53	18 14	13	40				
	50	24 16	23 34	22 53	22 12	21 32	20 54	20 14	19 36	18 58	18 22	17 45	17 08	14	50				
10	00	22 43	22 03	21 25	20 46	20 08	19 31	18 55	18 19	17 43	17 08	16 34	15 59	10	00				
	10	21 06	20 29	19 52	19 16	18 41	18 06	17 32	16 58	16 25	15 52	15 20	14 47	11	10				
	20	19 25	18 50	18 16	17 43	17 11	16 38	16 06	15 36	15 05	14 34	14 05	13 35	12	20				
	30	17 41	17 09	16 38	16 07	15 36	15 08	14 38	14 10	13 42	13 14	12 47	12 20	13	30				
	40	15 53	15 24	14 55	14 28	14 00	13 34	13 07	12 41	12 16	11 51	11 27	11 02	14	40				
	50	14 01	13 36	13 11	12 46	12 21	11 58	11 34	11 12	10 49	10 26	10 05	9 44	15	50				
11	00	12 07	11 44	11 22	11 01	10 40	10 20	9 59	9 39	9 20	9 01	8 41	8 23	11	00				
	10	10 11	9 52	9 32	9 14	8 57	8 40	8 22	8 05	7 50	7 33	7 17	7 01	12	10				
	20	8 11	7 55	7 40	7 26	7 12	6 57	6 44	6 30	6 17	6 04	5 52	5 39	13	20				
	30	6 10	5 58	5 47	5 36	5 25	5 15	5 04	4 54	4 44	4 34	4 24	4 15	14	30				
	40	4 08	4 00	3 52	3 45	3 37	3 30	3 24	3 17	3 10	3 03	2 56	2 51	15	40				

AZIMUTH OR TRUE BEARING.

LATITUDE 6.°			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 6.°		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	1 33	1 29	1 24	1 21	1 18	1 14	1 10	1 07	1 03	1 00	0 58		10	
	20	3 05	2 58	2 50	2 42	2 35	2 28	2 20	2 13	2 07	2 01	1 54		20	
	30	4 36	4 25	4 13	4 02	3 51	3 41	3 30	3 21	3 10	3 00	2 51		30	
	40	6 07	5 52	5 37	5 22	5 08	4 54	4 39	4 26	4 13	4 00	3 47		40	
	50	7 36	7 17	6 59	6 41	6 22	6 05	5 48	5 31	5 14	4 59	4 42		50	
1	00	9 04	8 41	8 19	7 58	7 36	7 16	6 55	6 35	6 15	5 56	5 36	1	00	
	10	10 30	10 04	9 38	9 13	8 49	8 25	8 01	7 38	7 15	6 53	6 30		10	
	20	11 54	11 24	10 56	10 27	9 59	9 32	9 06	8 40	8 14	7 49	7 23		20	
	30	13 15	12 43	12 10	11 40	11 09	10 38	10 10	9 40	9 12	8 44	8 16		30	
	40	14 34	13 58	13 23	12 49	12 16	11 43	11 11	10 39	10 07	9 36	9 06		40	
	50	15 49	15 11	14 33	13 56	13 21	12 46	12 10	11 36	11 02	10 29	9 56		50	
2	00	17 02	16 21	15 41	15 02	14 24	13 46	13 08	12 31	11 55	11 18	10 43	2	00	
	10	18 12	17 29	16 46	16 05	15 24	14 44	14 04	13 24	12 45	12 07	11 29		10	
	20	19 19	18 33	17 48	17 05	16 22	15 39	14 57	14 15	13 34	12 54	12 14		20	
	30	20 23	19 35	18 49	18 03	17 17	16 32	15 49	15 05	14 22	13 39	12 56		30	
	40	21 22	20 33	19 45	18 57	18 09	17 23	16 37	15 52	15 06	14 22	13 37		40	
	50	22 20	21 29	20 39	19 49	19 00	18 11	17 24	16 36	15 49	15 03	14 16		50	
3	00	23 13	22 21	21 29	20 37	19 47	18 57	18 08	17 19	16 30	15 42	14 54	3	00	
	10	24 04	23 09	22 17	21 24	20 32	19 40	18 49	17 58	17 08	16 19	15 29		10	
	20	24 51	23 55	23 01	22 07	21 14	20 21	19 28	18 36	17 44	16 53	16 02		20	
	30	25 34	24 37	23 42	22 47	21 53	20 59	20 05	19 11	18 18	17 26	16 33		30	
	40	26 14	25 17	24 21	23 25	22 29	21 34	20 38	19 44	18 50	17 57	17 03		40	
	50	26 51	25 53	24 56	24 00	23 03	22 07	21 11	20 14	19 19	18 25	17 29		50	
4	00	27 25	26 26	25 28	24 31	23 33	22 36	21 39	20 42	19 46	18 50	17 55	4	00	
	10	27 55	26 56	25 57	24 59	24 01	23 03	22 06	21 08	20 11	19 15	18 18		10	
	20	28 22	27 22	26 23	25 25	24 25	23 27	22 29	21 31	20 33	19 36	18 38		20	
	30	28 46	27 46	26 47	25 47	24 48	23 49	22 50	21 51	20 53	19 55	18 57		30	
	40	29 08	28 07	27 07	26 07	25 07	24 09	23 09	22 09	21 10	20 12	19 13		40	
	50	29 26	28 25	27 24	26 24	25 24	24 25	23 25	22 25	21 26	20 27	19 27		50	
5	00	29 40	28 40	27 39	26 39	25 38	24 38	23 38	22 38	21 38	20 39	19 39	5	00	
	10	29 52	28 52	27 51	26 50	25 49	24 50	23 49	22 49	21 49	20 50	19 49		10	
	20	30 01	29 01	27 99	26 59	25 59	24 59	23 57	22 57	21 57	20 57	19 56		20	
	30	30 08	29 07	28 06	27 06	26 05	25 04	24 04	23 03	22 03	21 03	20 02		30	
	40	30 11	29 09	28 09	27 09	26 09	25 08	24 07	23 07	22 07	21 07	20 06		40	
	50	30 11	29 10	28 09	27 10	26 09	25 09	24 08	23 08	22 08	21 07	20 06		50	
6	00	30 08	29 07	28 08	27 08	26 08	25 07	24 07	23 07	22 07	21 07	20 06	6	00	
	10	30 03	29 02	28 02	27 03	26 03	25 03	24 03	23 03	22 04	21 03	20 03		10	
	20	29 55	28 55	27 55	26 56	25 56	24 57	23 57	22 58	21 58	20 58	19 58		20	
	30	29 44	28 45	27 45	26 46	25 47	24 47	23 48	22 48	21 49	20 50	19 51		30	
	40	29 30	28 31	27 32	26 33	25 34	24 36	23 37	22 38	21 40	20 41	19 42		40	
	50	29 14	28 15	27 17	26 18	25 20	24 22	23 24	22 25	21 27	20 29	19 30		50	
7	00	28 55	27 57	26 59	26 01	25 03	24 05	23 08	22 10	21 13	20 15	19 17	7	00	
	10	28 32	27 35	26 37	25 41	24 44	23 47	22 49	21 53	20 56	20 00	19 02		10	
	20	28 08	27 11	26 14	25 18	24 21	23 26	22 29	21 33	20 37	19 42	18 45		20	
	30	27 40	26 44	25 49	24 53	23 57	23 02	22 07	21 12	20 16	19 21	18 26		30	
	40	27 09	26 14	25 20	24 25	23 30	22 36	21 42	20 47	19 52	18 59	18 04		40	
	50	26 37	25 43	24 48	23 55	23 02	22 08	21 14	20 21	19 27	18 35	17 42		50	
8	00	26 01	25 07	24 15	23 22	22 29	21 37	20 45	19 52	19 01	18 09	17 17	8	00	
	10	25 23	24 30	23 38	22 48	21 56	21 05	20 13	19 22	18 31	17 41	16 50		10	
	20	24 42	23 50	23 00	22 10	21 19	20 29	19 39	18 49	17 59	17 11	16 21		20	
	30	23 57	23 07	22 18	21 29	20 41	19 52	19 03	18 14	17 26	16 38	15 51		30	
	40	23 11	22 22	21 34	20 46	19 59	19 12	18 25	17 38	16 52	16 05	15 18		40	
	50	22 21	21 34	20 47	20 02	19 16	18 30	17 44	16 59	16 14	15 29	14 44		50	
9	00	21 29	20 44	19 59	19 15	18 30	17 46	17 02	16 19	15 35	14 52	14 08	9	00	
	10	20 35	19 51	19 08	18 25	17 42	17 00	16 18	15 35	14 54	14 13	13 32		10	
	20	19 37	18 55	18 14	17 33	16 53	16 12	15 31	14 51	14 11	13 32	12 53		20	
	30	18 38	17 58	17 18	16 40	16 00	15 22	14 43	14 05	13 27	12 50	12 12		30	
	40	17 36	16 58	16 21	15 43	15 06	14 29	13 53	13 17	12 41	12 06	11 31		40	
	50	16 32	15 56	15 21	14 45	14 11	13 36	13 01	12 27	11 54	11 21	10 48		50	
10	00	15 25	14 52	14 18	13 46	13 13	12 41	12 09	11 37	11 05	10 34	10 03	10	00	
	10	14 16	13 45	13 14	12 43	12 14	11 44	11 13	10 44	10 15	9 46	9 17		10	
	20	13 05	12 37	12 08	11 40	11 12	10 45	10 17	9 50	9 24	8 57	8 30		20	
	30	11 53	11 27	11 00	10 35	10 09	9 44	9 19	8 54	8 30	8 06	7 42		30	
	40	10 39	10 14	9 51	9 28	9 06	8 43	8 21	7 59	7 37	7 15	6 53		40	
	50	9 22	9 02	8 40	8 20	8 00	7 40	7 21	7 01	6 42	6 23	6 03		50	
11	00	8 04	7 47	7 28	7 11	6 54	6 37	6 20	6 03	5 46	5 30	5 13	11	00	
	10	6 46	6 31	6 16	6 01	5 46	5 32	5 18	5 04	4 50	4 35	4 22		10	
	20	5 26	5 14	5 02	4 50	4 38	4 26	4 15	4 03	3 52	3 41	3 30		20	
	30	4 05	3 56	3 46	3 38	3 29	3 21	3 12	3 03	2 55	2 47	2 38		30	
	40	2 44	2 38	2 32	2 26	2 20	2 14	2 08	2 02	1 57	1 51	1 46		40	
	50	1 22	1 18	1 16	1 13	1 10	1 07	1 04	1 01	0 59	0 56	0 53		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 7°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 7°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	7 46	7 17	6 51	6 28	6 08	5 49	5 32	5 15	5 00	4 47	4 33	4 21		10
	20	15 12	14 19	13 31	12 46	12 06	11 30	10 55	10 24	9 55	9 27	9 02	8 39		20
	30	22 07	20 53	19 46	18 44	17 47	16 54	16 06	15 21	14 39	14 00	13 23	12 49		30
	40	28 21	26 52	25 30	24 15	23 04	21 59	20 59	20 02	19 09	18 19	17 33	16 49		40
	50	33 51	32 11	30 40	29 14	27 54	26 40	25 29	24 24	23 21	22 23	21 27	20 36		50
1	00	38 36	36 52	35 14	33 42	32 16	30 54	29 37	28 24	27 15	26 09	25 08	24 09	1	00
	10	42 43	40 56	39 16	37 40	36 09	34 44	33 22	32 03	30 49	29 38	28 32	27 28		10
	20	46 15	44 29	42 47	41 09	39 37	38 08	36 43	35 21	34 04	32 49	31 39	30 30		20
	30	49 17	47 32	45 51	44 14	42 40	41 10	39 44	38 21	37 01	35 44	34 30	33 19		30
	40	51 53	50 11	48 31	46 55	45 22	43 52	42 25	41 01	39 40	38 21	37 05	35 52		40
	50	54 08	52 28	50 50	49 16	47 44	46 15	44 48	43 24	42 02	40 43	39 26	38 11		50
2	00	56 05	54 28	52 52	51 20	49 50	48 22	46 55	45 32	44 11	42 51	41 34	40 19	2	00
	10	57 45	56 10	54 38	53 08	51 39	50 13	48 48	47 26	46 05	44 45	43 28	42 13		10
	20	59 11	57 39	56 11	54 43	53 17	51 52	50 28	49 07	47 47	46 28	45 11	43 57		20
	30	60 32	58 58	57 32	56 06	54 42	53 19	51 58	50 37	49 19	48 01	46 45	45 30		30
	40	61 27	60 06	58 42	57 19	55 57	54 36	53 16	51 58	50 39	49 23	48 08	46 54		40
	50	62 28	61 05	59 44	58 23	57 03	55 44	54 25	53 09	51 52	50 37	49 23	48 09		50
3	00	63 18	61 57	60 38	59 19	58 01	56 43	55 27	54 11	52 56	51 42	50 29	49 16	3	00
	10	64 00	62 42	61 25	60 08	58 52	57 36	56 21	55 07	53 54	52 40	51 28	50 17		10
	20	64 37	63 21	62 05	60 50	59 36	58 22	57 09	55 56	54 43	53 32	52 21	51 10		20
	30	65 08	63 54	62 40	61 27	60 14	59 02	57 51	56 39	55 28	54 17	53 07	51 58		30
	40	65 35	64 22	63 11	61 59	60 48	59 37	58 26	57 16	56 06	54 57	53 48	52 39		40
	50	65 57	64 47	63 36	62 26	61 17	60 07	58 58	57 49	56 41	55 32	54 23	53 15		50
4	00	66 15	65 06	63 58	62 49	61 40	60 32	59 24	58 16	57 09	56 02	54 54	53 48	4	00
	10	66 30	65 22	64 15	63 07	62 00	60 53	59 47	58 40	57 34	56 26	55 20	54 15		10
	20	66 42	65 35	64 29	63 23	62 17	61 10	60 05	58 59	57 54	56 48	55 43	54 38		20
	30	66 50	65 45	64 40	63 35	62 30	61 24	60 19	59 15	58 10	57 05	56 01	54 56		30
	40	66 56	65 52	64 47	63 44	62 39	61 35	60 31	59 27	58 23	57 18	56 15	55 11		40
	50	66 59	65 55	64 52	63 48	62 46	61 42	60 39	59 35	58 33	57 29	56 26	55 23		50
5	00	66 59	65 57	64 53	63 51	62 49	61 46	60 44	59 41	58 38	57 35	56 33	55 31	5	00
	10	66 57	65 55	64 53	63 51	62 50	61 47	60 45	59 44	58 41	57 40	56 38	55 35		10
	20	66 52	65 50	64 49	63 48	62 47	61 45	60 44	59 43	58 42	57 40	56 38	55 37		20
	30	66 45	65 44	64 44	63 43	62 42	61 41	60 40	59 39	58 39	57 37	56 36	55 35		30
	40	66 35	65 35	64 35	63 35	62 34	61 33	60 33	59 32	58 32	57 32	56 31	55 31		40
	50	66 24	65 24	64 23	63 23	62 24	61 24	60 24	59 24	58 24	57 24	56 23	55 23		50
6	00	66 10	65 09	64 10	63 10	62 11	61 10	60 11	59 12	58 11	57 11	56 12	55 12	6	00
	10	65 53	64 54	63 54	62 54	61 55	60 56	59 56	58 57	57 57	56 58	55 58	54 58		10
	20	65 34	64 35	63 35	62 36	61 37	60 37	59 38	58 38	57 39	56 40	55 41	54 42		20
	30	65 13	64 14	63 14	62 15	61 16	60 16	59 17	58 18	57 19	56 20	55 20	54 22		30
	40	64 49	63 49	62 51	61 51	60 53	59 53	58 54	57 55	56 56	55 57	54 57	53 59		40
	50	64 23	63 23	62 24	61 25	60 26	59 26	58 27	57 28	56 29	55 29	54 31	53 33		50
7	00	63 53	62 54	61 54	60 55	59 55	58 56	57 57	56 58	55 59	55 00	54 01	53 03	7	00
	10	63 21	62 22	61 22	60 23	59 24	58 24	57 24	56 25	55 27	54 28	53 29	52 31		10
	20	62 46	61 46	60 47	59 47	58 47	57 47	56 48	55 49	54 50	53 52	52 52	51 54		20
	30	62 08	61 08	60 07	59 08	58 08	57 08	56 08	55 09	54 11	53 12	52 13	51 15		30
	40	61 26	60 26	59 25	58 25	57 26	56 25	55 25	54 27	53 28	52 29	51 30	50 32		40
	50	60 41	59 40	58 39	57 39	56 38	55 38	54 39	53 40	52 40	51 42	50 42	49 45		50
8	00	59 51	58 50	57 49	56 48	55 48	54 48	53 48	52 48	51 49	50 50	49 51	48 54	8	00
	10	58 58	57 56	56 54	55 54	54 53	53 52	52 52	51 53	50 53	49 54	48 56	47 58		10
	20	58 00	56 57	55 56	54 55	53 53	52 52	51 52	50 53	49 53	48 55	47 55	46 58		20
	30	56 57	55 54	54 52	53 50	52 49	51 48	50 48	49 48	48 48	47 49	46 52	45 53		30
	40	55 49	54 46	53 43	52 41	51 39	50 37	49 37	48 38	47 38	46 40	45 41	44 44		40
	50	54 35	53 31	52 28	51 26	50 24	49 22	48 22	47 22	46 23	45 24	44 26	43 30		50
9	00	53 15	52 11	51 07	50 04	49 03	48 01	47 00	46 01	45 02	44 03	43 05	42 09	9	00
	10	51 47	50 43	49 39	48 37	47 34	46 32	45 33	44 33	43 35	42 36	41 40	40 44		10
	20	50 13	49 07	48 04	47 01	45 59	44 57	43 58	42 59	42 01	41 03	40 07	39 12		20
	30	48 30	47 25	46 21	45 18	44 16	43 15	42 16	41 18	40 21	39 23	38 28	37 33		30
	40	46 38	45 33	44 30	43 27	42 26	41 25	40 26	39 29	38 33	37 36	36 42	35 49		40
	50	44 36	43 32	42 29	41 27	40 27	39 27	38 29	37 33	36 37	35 43	34 50	33 58		50
10	00	42 25	41 20	40 19	39 18	38 18	37 19	36 24	35 28	34 34	33 41	32 50	32 00	10	00
	10	40 01	38 58	37 56	36 57	35 59	35 02	34 07	33 14	32 22	31 31	30 42	29 54		10
	20	37 25	36 24	35 25	34 28	33 31	32 36	31 44	30 54	30 03	29 14	28 27	27 42		20
	30	34 37	33 38	32 40	31 46	30 52	30 00	29 10	28 22	27 35	26 48	26 05	25 22		30
	40	31 34	30 38	29 45	28 53	28 02	27 13	26 27	25 42	24 58	24 15	23 34	22 54		40
	50	28 19	27 27	26 37	25 48	25 02	24 17	23 34	22 53	22 13	21 33	20 56	20 20		50
11	00	24 49	24 02	23 16	22 33	21 52	21 10	20 32	19 55	19 20	18 45	18 12	17 40	11	00
	10	21 06	20 25	19 45	19 07	18 30	17 55	17 22	16 50	16 19	15 50	15 21	14 54		10
	20	17 11	16 36	16 02	15 30	15 01	14 32	14 04	13 38	13 12	12 48	12 24	12 02		20
	30	13 03	12 36	12 10	11 46	11 23	11 01	10 39	10 18	9 59	9 40	9 23	9 06		30
	40	8 48	8 30	8 11	7 54	7 39	7 24	7 09	6 55	6 42	6 29	6 18	6 06		40
	50	4 25	4 16	4 07	3 58	3 51	3 43	3 35	3 28	3 22	3 15	3 09	3 04		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 7°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 7°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	4 10	3 59	3 49	3 39	3 31	3 22	3 14	3 07	2 59	2 52	2 46	2 39		10
	20	8 16	7 55	7 35	7 17	7 00	6 42	6 27	6 11	5 57	5 42	5 29	5 17		20
	30	12 16	11 46	11 17	10 49	10 23	9 58	9 35	9 13	8 52	8 31	8 11	7 52		30
	40	16 07	15 27	14 51	14 15	13 42	13 09	12 39	12 11	11 43	11 16	10 50	10 25		40
	50	19 47	18 59	18 15	17 32	16 53	16 14	15 36	15 01	14 27	13 56	13 24	12 53		50
1	00	23 13	22 20	21 28	20 40	19 54	19 10	18 26	17 46	17 07	16 29	15 53	15 18	1	00
	10	26 26	25 28	24 31	23 37	22 46	21 56	21 09	20 23	19 39	18 57	18 16	17 36		10
	20	29 25	28 22	27 22	26 23	25 27	24 34	23 42	22 52	22 03	21 18	20 32	19 48		20
	30	32 10	31 04	30 00	28 59	27 59	27 02	26 06	25 13	24 20	23 31	22 41	21 55		30
	40	34 41	33 33	32 26	31 22	30 20	29 20	28 22	27 24	26 29	25 37	24 45	23 54		40
	50	36 59	35 49	34 41	33 34	32 30	31 28	30 27	29 28	28 30	27 35	26 40	25 47		50
2	00	39 05	37 54	36 45	35 37	34 30	33 26	32 23	31 23	30 23	29 25	28 28	27 32	2	00
	10	40 59	39 47	38 37	37 29	36 21	35 16	34 12	33 09	32 08	31 08	30 09	29 10		10
	20	42 43	41 31	40 20	39 11	38 03	36 56	35 51	34 48	33 44	32 43	31 43	30 44		20
	30	44 17	43 04	41 53	40 44	39 36	38 28	37 22	36 17	35 14	34 12	33 10	32 10		30
	40	45 41	44 29	43 19	42 08	41 00	39 53	38 46	37 41	36 37	35 34	34 31	33 31		40
	50	46 56	45 45	44 34	43 25	42 17	41 10	40 03	38 57	37 52	36 49	35 46	34 44		50
3	00	48 04	46 53	45 44	44 35	43 27	42 19	41 13	40 06	39 02	37 58	36 54	35 51	3	00
	10	49 05	47 56	46 46	45 37	44 30	43 22	42 16	41 10	40 05	39 01	37 57	36 54		10
	20	50 00	48 51	47 42	46 34	45 26	44 19	43 13	42 08	41 02	39 58	38 54	37 50		20
	30	50 48	49 39	48 31	47 24	46 17	45 10	44 05	42 59	41 54	40 49	39 46	38 42		30
	40	51 31	50 23	49 16	48 09	47 02	45 56	44 51	43 46	42 40	41 36	40 32	39 29		40
	50	52 08	51 01	49 55	48 49	47 43	46 37	45 31	44 26	43 22	42 18	41 13	40 10		50
4	00	52 41	51 35	50 28	49 23	48 17	47 12	46 08	45 03	43 59	42 55	41 51	40 48	4	00
	10	53 09	52 03	50 58	49 52	48 48	47 44	46 39	45 35	44 31	43 27	42 23	41 21		10
	20	53 32	52 27	51 23	50 19	49 15	48 10	47 06	46 03	44 59	43 56	42 52	41 50		20
	30	53 52	52 48	51 44	50 40	49 36	48 32	47 29	46 26	45 23	44 20	43 17	42 14		30
	40	54 08	53 04	52 01	50 58	49 54	48 51	47 48	46 45	45 42	44 40	43 37	42 35		40
	50	54 20	53 17	52 14	51 11	50 09	49 06	48 03	47 01	45 59	44 57	43 54	42 52		50
5	00	54 29	53 26	52 24	51 21	50 19	49 17	48 15	47 13	46 11	45 09	44 07	43 05	5	00
	10	54 34	53 31	52 30	51 28	50 26	49 25	48 23	47 21	46 20	45 19	44 16	43 15		10
	20	54 36	53 34	52 33	51 32	50 31	49 29	48 27	47 26	46 25	45 24	44 22	43 21		20
	30	54 35	53 34	52 33	51 32	50 31	49 30	48 29	47 28	46 27	45 27	44 25	43 24		30
	40	54 30	53 30	52 29	51 28	50 28	49 27	48 26	47 27	46 26	45 25	44 24	43 23		40
	50	54 23	53 23	52 22	51 22	50 22	49 22	48 21	47 22	46 21	45 21	44 20	43 20		50
6	00	54 12	53 12	52 13	51 13	50 13	49 13	48 13	47 13	46 13	45 13	44 13	43 13	6	00
	10	53 58	52 58	51 59	50 59	50 00	49 01	48 01	47 02	46 02	45 03	44 03	43 02		10
	20	53 42	52 43	51 43	50 44	49 44	48 45	47 46	46 47	45 48	44 48	43 49	42 49		20
	30	53 22	52 23	51 24	50 25	49 26	48 27	47 28	46 29	45 30	44 31	43 32	42 33		30
	40	53 00	52 00	51 01	50 03	49 04	48 05	47 06	46 08	45 09	44 11	43 11	42 13		40
	50	52 34	51 35	50 37	49 37	48 39	47 41	46 42	45 44	44 45	43 48	42 48	41 50		50
7	00	52 04	51 06	50 07	49 09	48 11	47 12	46 14	45 16	44 18	43 20	42 22	41 24	7	00
	10	51 31	50 33	49 36	48 37	47 39	46 41	45 43	44 46	43 48	42 50	41 51	40 54		10
	20	50 56	49 58	48 59	48 02	47 03	46 05	45 07	44 11	43 13	42 16	41 19	40 21		20
	30	50 16	49 18	48 21	47 22	46 25	45 27	44 30	43 33	42 35	41 39	40 41	39 45		30
	40	49 33	48 35	47 37	46 39	45 41	44 45	43 48	42 52	41 54	40 58	40 02	39 05		40
	50	48 46	47 48	46 51	45 53	44 56	44 00	43 03	42 07	41 09	40 14	39 18	38 22		50
8	00	47 54	46 57	46 00	45 03	44 06	43 09	42 13	41 17	40 21	39 25	38 30	37 35	8	00
	10	46 59	46 02	45 05	44 08	43 11	42 15	41 19	40 24	39 29	38 34	37 39	36 44		10
	20	46 00	45 03	44 06	43 09	42 14	41 17	40 22	39 27	38 33	37 38	36 44	35 50		20
	30	44 55	43 59	43 03	42 06	41 10	40 16	39 21	38 26	37 32	36 38	35 45	34 53		30
	40	43 47	42 50	41 54	40 58	40 03	39 09	38 14	37 21	36 27	35 35	34 42	33 50		40
	50	42 32	41 36	40 41	39 46	38 51	37 58	37 05	36 11	35 19	34 28	33 36	32 45		50
9	00	41 12	40 17	39 22	38 28	37 34	36 41	35 49	34 57	34 06	33 15	32 24	31 35	9	00
	10	39 48	38 52	37 59	37 05	36 13	35 21	34 30	33 39	32 48	31 59	31 09	30 21		10
	20	38 16	37 23	36 30	35 37	34 46	33 55	33 04	32 16	31 27	30 37	29 49	29 03		20
	30	36 39	35 47	34 56	34 04	33 13	32 24	31 35	30 47	29 59	29 13	28 26	27 41		30
	40	34 56	34 04	33 14	32 24	31 35	30 47	30 00	29 14	28 28	27 42	26 58	25 14		40
	50	33 06	32 16	31 28	30 39	29 52	29 05	28 20	27 35	26 51	26 08	25 25	24 43		50
10	00	31 10	30 21	29 35	28 49	28 03	27 19	26 35	25 53	25 10	24 29	23 48	23 09	10	00
	10	29 06	28 21	27 35	26 52	26 08	25 26	24 45	24 04	23 24	22 46	22 07	21 30		10
	20	26 57	26 13	25 31	24 48	24 08	23 28	22 50	22 12	21 35	20 59	20 22	19 47		20
	30	24 39	23 58	23 19	22 39	22 02	21 25	20 49	20 14	19 40	19 07	18 33	18 01		30
	40	22 15	21 38	21 01	20 26	19 50	19 17	18 44	18 13	17 41	17 11	16 40	16 11		40
	50	19 45	19 11	18 38	18 06	17 35	17 03	16 35	16 06	15 38	15 11	14 44	14 17		50
11	00	17 08	16 30	16 09	15 42	15 14	14 47	14 22	13 56	13 31	13 07	12 44	12 21	11	00
	10	14 27	14 01	13 36	13 12	12 48	12 27	12 04	11 43	11 22	11 02	10 42	10 22		10
	20	11 40	11 19	10 59	10 39	10 20	10 02	9 44	9 26	9 09	8 52	8 36	8 21		20
	30	8 48	8 32	8 17	8 02	7 47	7 34	7 20	7 07	6 54	6 41	6 29	6 18		30
	40	5 54	5 43	5 33	5 23	5 13	5 04	4 54	4 45	4 37	4 29	4 20	4 12		40
	50	2 58	2 52	2 47	2 42	2 37	2 32	2 27	2 23	2 19	2 15	2 10	2 06		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 7°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 7°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h. 0	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h. 0	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		00
	10	2 33	2 27	2 22	2 16	2 10	2 05	2 00	1 56	1 51	1 46	1 42	1 38		10
	20	5 05	4 53	4 42	4 31	4 20	4 10	4 00	3 50	3 42	3 32	3 24	3 16		20
	30	7 34	7 17	7 00	6 44	6 29	6 14	5 59	5 45	5 32	5 18	5 05	4 53		30
	40	10 02	9 39	9 17	8 56	8 35	8 15	7 56	7 38	7 19	7 02	6 45	6 28		40
	50	12 24	11 57	11 30	11 04	10 39	10 15	9 51	9 28	9 06	8 44	8 23	8 02		50
1	00	14 43	14 11	13 39	13 09	12 39	12 10	11 43	11 15	10 50	10 24	9 59	9 34	1	00
	10	16 58	16 20	15 44	15 10	14 37	14 03	13 32	13 00	12 31	12 01	11 33	11 05		10
	20	19 06	18 25	17 45	17 06	16 29	15 53	15 17	14 42	14 09	13 36	13 04	12 33		20
	30	21 08	20 24	19 40	18 59	18 18	17 37	16 59	16 21	15 44	15 08	14 32	13 58		30
	40	23 05	22 17	21 31	20 45	20 02	19 18	18 36	17 56	17 16	16 36	15 58	15 20		40
	50	24 54	24 04	23 15	22 27	21 40	20 54	20 09	19 26	18 43	18 01	17 19	16 39		50
2	00	26 39	25 46	24 53	24 03	23 14	22 25	21 38	20 52	20 06	19 22	18 38	17 56	2	00
	10	28 15	27 21	26 27	25 34	24 43	23 52	23 02	22 14	21 26	20 39	19 52	19 08		10
	20	29 47	28 50	27 54	26 59	26 07	25 14	24 22	23 31	22 41	21 52	21 04	20 17		20
	30	31 11	30 14	29 16	28 20	27 25	26 30	25 38	24 45	23 53	23 02	22 12	21 23		30
	40	32 30	31 31	30 33	29 34	28 38	27 43	26 48	25 54	25 01	24 08	23 15	22 25		40
	50	33 43	32 42	31 43	30 44	29 47	28 49	27 53	26 58	26 04	25 09	24 16	23 24		50
3	00	34 50	33 49	32 48	31 49	30 51	29 52	28 55	27 58	27 02	26 07	25 12	24 19	3	00
	10	35 52	34 50	33 49	32 49	31 50	30 50	29 52	28 55	27 58	27 01	26 05	25 10		10
	20	36 48	35 46	34 45	33 44	32 44	31 44	30 45	29 46	28 48	27 51	26 54	25 58		20
	30	37 39	36 37	35 35	34 33	33 33	32 33	31 33	30 34	29 35	28 37	27 39	26 42		30
	40	38 25	37 23	36 21	35 19	34 19	33 18	32 18	31 18	30 18	29 19	28 21	27 23		40
	50	39 08	38 05	37 03	36 01	35 00	33 58	32 57	31 58	30 58	29 58	28 59	28 00		50
4	00	39 45	38 42	37 39	36 38	35 37	34 34	33 34	32 33	31 33	30 33	29 33	28 34	4	00
	10	40 18	39 15	38 13	37 11	36 10	35 07	34 06	33 06	32 05	31 05	30 04	29 05		10
	20	40 47	39 44	38 41	37 40	36 38	35 36	34 35	33 34	32 33	31 32	30 32	29 32		20
	30	41 11	40 09	39 07	38 04	37 03	36 01	35 00	33 58	32 57	31 57	30 56	29 56		30
	40	41 32	40 30	39 28	38 27	37 24	36 22	35 21	34 21	33 19	32 18	31 17	30 17		40
	50	41 50	40 48	39 46	38 44	37 42	36 40	35 39	34 38	33 37	32 36	31 34	30 34		50
5	00	42 03	41 01	40 00	38 58	37 56	36 55	35 53	34 52	33 51	32 50	31 49	30 49	5	00
	10	42 13	41 11	40 11	39 09	38 07	37 06	36 05	35 04	34 02	33 02	32 01	31 00		10
	20	42 20	41 19	40 17	39 16	38 15	37 14	36 12	35 12	34 10	33 10	32 09	31 08		20
	30	42 23	41 22	40 21	39 20	38 19	37 18	36 17	35 16	34 16	33 15	32 14	31 13		30
	40	42 23	41 23	40 22	39 21	38 20	37 19	36 18	35 19	34 18	33 17	32 16	31 15		40
	50	42 19	41 19	40 18	39 18	38 18	37 18	36 17	35 17	34 16	33 16	32 16	31 15		50
6	00	42 13	41 13	40 13	39 13	38 13	37 12	36 12	35 12	34 12	33 12	32 11	31 11	6	00
	10	42 03	41 03	40 03	39 03	38 04	37 03	36 04	35 04	34 04	33 05	32 04	31 05		10
	20	41 50	40 51	39 51	38 52	37 52	36 52	35 53	34 54	33 55	32 55	31 56	30 56		20
	30	41 34	40 34	39 36	38 37	37 38	36 39	35 40	34 40	33 41	32 42	31 43	30 45		30
	40	41 14	40 16	39 17	38 18	37 20	36 21	35 22	34 24	33 25	32 27	31 28	30 29		40
	50	40 52	39 54	38 55	37 58	36 59	36 00	35 02	34 04	33 06	32 08	31 09	30 12		50
7	00	40 26	39 28	38 30	37 32	36 34	35 36	34 39	33 42	32 43	31 46	30 48	29 51	7	00
	10	39 57	38 59	38 02	37 04	36 07	35 10	34 12	33 16	32 19	31 22	30 25	29 28		10
	20	39 24	38 27	37 30	36 33	35 36	34 39	33 43	32 47	31 51	30 54	29 58	29 02		20
	30	38 48	37 52	36 56	35 59	35 03	34 06	33 11	32 16	31 20	30 24	29 28	28 33		30
	40	38 09	37 13	36 17	35 21	34 26	33 31	32 35	31 41	30 45	29 50	28 56	28 01		40
	50	37 27	36 32	35 36	34 41	33 47	32 51	31 57	31 03	30 08	29 14	28 20	27 27		50
8	00	36 40	35 46	34 51	33 57	33 03	32 08	31 15	30 22	29 28	28 35	27 42	26 50	8	00
	10	35 51	34 57	34 03	33 09	32 16	31 23	30 30	29 38	28 46	27 53	27 01	26 10		10
	20	34 57	34 04	33 11	32 18	31 26	30 34	29 42	28 51	28 00	27 08	26 17	25 27		20
	30	34 00	33 08	32 15	31 24	30 33	29 41	28 51	28 01	27 10	26 21	25 30	24 42		30
	40	32 59	32 08	31 17	30 26	29 36	28 46	27 56	27 07	26 18	25 30	24 42	23 53		40
	50	31 54	31 04	30 14	29 25	28 36	27 46	26 58	26 11	25 23	24 36	23 48	23 02		50
9	00	30 45	29 56	29 07	28 19	27 32	26 44	25 58	25 11	24 25	23 39	22 54	22 08	9	00
	10	29 32	28 45	27 57	27 11	26 26	25 39	24 53	24 09	23 23	22 40	21 55	21 12		10
	20	28 15	27 30	26 44	25 59	25 14	24 30	23 46	23 03	22 20	21 37	20 55	20 14		20
	30	26 55	26 10	25 26	24 44	24 01	23 17	22 35	21 54	21 13	20 32	19 52	19 12		30
	40	25 30	24 47	24 06	23 24	22 43	22 02	21 22	20 43	20 03	19 24	18 46	18 08		40
	50	24 02	23 21	22 41	22 01	21 22	20 43	20 05	19 28	18 51	18 14	17 37	17 01		50
10	00	22 30	21 50	21 12	20 35	19 59	19 21	18 46	18 10	17 36	17 01	16 27	15 54	10	00
	10	20 53	20 17	19 40	19 06	18 32	17 57	17 23	16 51	16 18	15 46	15 14	14 42		10
	20	19 13	18 40	18 06	17 33	17 01	16 29	15 58	15 28	14 58	14 28	13 59	13 29		20
	30	17 30	16 58	16 27	15 58	15 28	14 59	14 30	14 02	13 34	13 07	12 41	12 15		30
	40	15 42	15 13	14 47	14 19	13 52	13 26	13 00	12 35	12 10	11 46	11 21	10 58		40
	50	13 51	13 27	13 02	12 38	12 14	11 51	11 29	11 05	10 43	10 22	10 00	9 39		50
11	00	11 58	11 36	11 15	10 54	10 33	10 13	9 54	9 35	9 15	8 56	8 37	8 19	11	00
	10	10 03	9 44	9 26	9 09	8 52	8 34	8 18	8 02	7 45	7 30	7 14	6 58		10
	20	8 05	7 50	7 36	7 21	7 07	6 53	6 40	6 26	6 14	6 01	5 48	5 35		20
	30	6 05	5 55	5 43	5 33	5 22	5 12	5 01	4 51	4 42	4 32	4 22	4 12		30
	40	4 05	3 57	3 49	3 42	3 35	3 28	3 22	3 15	3 08	3 01	2 56	2 49		40
	50	2 02	1 57	1 51	1 48	1 44	1 40	1 37	1 35	1 31	1 28	1 25	1 20		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 7°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 7°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	1 34	1 30	1 26	1 22	1 18	1 15	1 11	1 08	1 04	1 01	0 57	0	10	
	20	3 07	3 00	2 51	2 44	2 37	2 29	2 22	2 15	2 08	2 01	1 54	0	20	
	30	4 40	4 29	4 16	4 05	3 54	3 43	3 32	3 23	3 12	3 02	2 52	0	30	
	40	6 12	5 56	5 41	5 26	5 10	4 56	4 43	4 28	4 15	4 02	3 49	0	40	
	50	7 42	7 23	7 04	6 45	6 27	6 08	5 51	5 34	5 18	5 01	4 45	0	50	
1	00	9 11	8 48	8 25	8 03	7 41	7 20	7 00	6 38	6 19	5 59	5 40	1	00	
	10	10 35	10 11	9 45	9 19	8 55	8 30	8 06	7 43	7 20	6 57	6 34	1	10	
	20	12 02	11 32	11 03	10 34	10 06	9 39	9 12	8 45	8 19	7 53	7 28	1	20	
	30	13 24	12 51	12 19	11 47	11 16	10 45	10 14	9 45	9 16	8 48	8 19	1	30	
	40	14 44	14 08	13 31	12 57	12 23	11 49	11 17	10 44	10 13	9 41	9 10	1	40	
	50	16 00	15 21	14 43	14 05	13 28	12 53	12 17	11 42	11 08	10 33	9 59	1	50	
2	00	17 13	16 32	15 51	15 11	14 31	13 53	13 15	12 37	12 01	11 24	10 48	2	00	
	10	18 24	17 40	16 56	16 14	15 32	14 51	14 11	13 31	12 52	12 13	11 34	2	10	
	20	19 31	18 44	17 59	17 14	16 31	15 47	15 04	14 22	13 41	13 00	12 19	2	20	
	30	20 35	19 46	18 59	18 13	17 26	16 41	15 56	15 11	14 28	13 45	13 02	2	30	
	40	21 35	20 45	19 56	19 07	18 18	17 32	16 45	15 58	15 13	14 28	13 43	2	40	
	50	22 32	21 40	20 49	19 59	19 09	18 20	17 32	16 44	15 56	15 09	14 22	2	50	
3	00	23 25	22 32	21 39	20 47	19 57	19 06	18 16	17 25	16 36	15 48	15 00	3	00	
	10	24 15	23 21	22 27	21 34	20 41	19 50	18 58	18 06	17 16	16 25	15 35	3	10	
	20	25 01	24 06	23 11	22 17	21 22	20 29	19 36	18 43	17 51	16 59	16 08	3	20	
	30	25 45	24 49	23 52	22 57	22 02	21 07	20 12	19 18	18 25	17 32	16 39	3	30	
	40	26 25	25 27	24 31	23 34	22 38	21 42	20 47	19 51	18 56	18 02	17 09	3	40	
	50	27 01	25 04	24 06	23 08	22 11	22 15	21 18	20 21	19 26	18 31	17 35	3	50	
4	00	27 34	26 36	25 37	24 39	23 41	22 44	21 46	20 48	19 53	18 56	18 00	4	00	
	10	28 04	27 06	26 06	25 08	24 09	23 11	22 12	21 14	20 17	19 20	18 22	4	10	
	20	28 32	27 31	26 32	25 33	24 33	23 34	22 36	21 37	20 39	19 41	18 43	4	20	
	30	28 55	27 55	26 55	25 55	24 55	23 56	22 56	21 57	20 59	20 00	19 01	4	30	
	40	29 16	28 16	27 15	26 14	25 14	24 14	23 15	22 15	21 16	20 16	19 18	4	40	
	50	29 33	28 32	27 32	26 31	25 31	24 30	23 30	22 30	21 31	20 31	19 31	4	50	
5	00	29 47	28 47	27 46	26 45	25 45	24 44	23 44	22 43	21 43	20 44	19 43	5	00	
	10	29 59	28 58	27 57	26 56	25 56	24 54	23 54	22 53	21 54	20 54	19 52	5	10	
	20	30 07	29 06	28 05	27 04	26 03	25 03	24 02	23 01	22 01	21 01	20 00	5	20	
	30	30 13	29 11	28 11	27 10	26 09	25 08	24 08	23 06	22 06	21 06	20 05	5	30	
	40	30 14	29 15	28 14	27 13	26 12	25 11	24 10	23 09	22 10	21 09	20 08	5	40	
	50	30 15	29 14	28 13	27 12	26 12	25 12	24 11	23 11	22 11	21 10	20 09	5	50	
6	00	30 11	29 11	28 10	27 10	26 09	25 10	24 10	23 09	22 09	21 09	20 08	6	00	
	10	30 05	29 06	28 06	27 05	26 05	25 06	24 05	23 05	22 05	21 05	20 05	6	10	
	20	30 57	29 57	28 57	27 57	26 57	25 57	24 59	23 59	22 58	21 59	20 00	6	20	
	30	29 45	28 46	27 46	26 47	25 48	24 49	23 49	22 50	21 51	20 52	19 53	6	30	
	40	29 30	28 31	27 33	26 34	25 36	24 36	23 38	22 39	21 39	20 42	19 43	6	40	
	50	29 14	28 16	27 17	26 19	25 20	24 23	23 24	22 26	21 28	20 30	19 32	6	50	
7	00	28 54	27 55	26 58	26 01	25 03	24 05	23 09	22 10	21 13	20 16	19 18	7	00	
	10	28 31	27 33	26 37	25 40	24 43	23 46	22 50	21 52	20 56	20 00	19 03	7	10	
	20	28 05	27 09	26 13	25 17	24 20	23 24	22 29	21 32	20 37	19 41	18 45	7	20	
	30	27 37	26 42	25 47	24 51	23 56	23 01	22 06	21 10	20 15	19 20	18 25	7	30	
	40	27 06	26 12	25 17	24 23	23 28	22 34	21 40	20 46	19 53	18 59	18 04	7	40	
	50	26 32	25 39	24 45	23 52	22 59	22 06	21 13	20 20	19 27	18 34	17 40	7	50	
8	00	25 56	25 04	24 12	23 19	22 27	21 35	20 43	19 51	18 59	18 08	17 15	8	00	
	10	25 17	24 27	23 35	22 43	21 52	21 02	20 11	19 19	18 30	17 39	16 49	8	10	
	20	24 36	23 45	22 55	22 05	21 16	20 26	19 37	18 47	17 58	17 09	16 20	8	20	
	30	23 52	23 02	22 14	21 25	20 37	19 48	19 00	18 11	17 24	16 37	15 49	8	30	
	40	23 05	22 18	21 29	20 42	19 56	19 09	18 22	17 35	16 49	16 03	15 16	8	40	
	50	22 16	21 29	20 43	19 58	19 12	18 27	17 42	16 56	16 12	15 27	14 43	8	50	
9	00	21 23	20 38	19 54	19 10	18 26	17 43	16 59	16 16	15 32	14 50	14 06	9	00	
	10	20 29	19 46	19 02	18 20	17 38	16 56	16 14	15 33	14 52	14 10	13 30	9	10	
	20	19 32	18 51	18 09	17 29	16 48	16 08	15 28	14 48	14 09	13 30	12 50	9	20	
	30	18 32	17 52	17 14	16 34	15 56	15 18	14 40	14 02	13 25	12 47	12 10	9	30	
	40	17 30	16 52	16 16	15 39	15 02	14 26	13 50	13 14	12 39	12 03	11 29	9	40	
	50	16 26	15 51	15 16	14 41	14 06	13 33	12 59	12 24	11 51	11 18	10 45	9	50	
10	00	15 19	14 46	14 14	13 41	13 08	12 37	12 06	11 33	11 02	10 32	10 01	10	00	
	10	14 10	13 40	13 10	12 39	12 09	11 40	11 11	10 41	10 12	9 44	9 15	10	10	
	20	13 00	12 32	12 04	11 37	11 09	10 42	10 14	9 48	9 21	8 54	8 29	10	20	
	30	11 48	11 22	10 56	10 31	10 06	9 41	9 17	8 52	8 29	8 05	7 41	10	30	
	40	10 34	10 10	9 48	9 25	9 02	8 40	8 18	7 56	7 35	7 14	6 52	10	40	
	50	9 19	8 58	8 37	8 18	7 58	7 38	7 19	6 59	6 40	6 21	6 02	10	50	
11	00	8 01	7 44	7 26	7 08	6 51	6 34	6 17	6 01	5 44	5 28	5 12	11	00	
	10	6 43	6 28	6 13	5 59	5 45	5 30	5 16	5 02	4 49	4 34	4 21	11	10	
	20	5 23	5 11	5 00	4 48	4 37	4 25	4 14	4 03	3 52	3 41	3 29	11	20	
	30	4 03	3 55	3 46	3 37	3 28	3 19	3 11	3 02	2 54	2 46	2 38	11	30	
	40	2 43	2 37	2 31	2 25	2 19	2 13	2 07	2 02	1 56	1 51	1 45	11	40	
	50	1 21	1 18	1 15	1 13	1 10	1 07	1 04	1 01	0 58	0 56	0 53	11	50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 8°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 8°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	8 13	7 41	7 14	6 48	6 25	6 05	5 45	5 27	5 12	4 57	4 43	4 30	0	10
0	20	16 08	15 06	14 13	13 24	12 40	12 00	11 23	10 49	10 18	9 48	9 21	8 55	0	20
0	30	23 18	21 57	20 43	19 36	18 34	17 37	16 45	15 56	15 11	14 29	13 50	13 13	0	30
0	40	29 44	28 09	26 40	25 17	24 02	22 52	21 46	20 46	19 50	18 57	18 07	17 21	0	40
0	50	35 21	33 35	31 57	30 25	28 59	27 40	26 24	25 14	24 08	23 07	22 09	21 13	0	50
1	00	40 10	38 20	36 36	34 58	33 25	31 59	30 37	29 20	28 07	26 58	25 53	24 51	1	00
1	10	44 18	42 25	40 39	38 58	37 22	35 51	34 25	33 02	31 44	30 30	29 20	28 13	1	10
1	20	47 47	45 56	44 10	42 27	40 50	39 17	37 48	36 23	35 01	33 44	32 29	31 18	1	20
1	30	50 47	48 57	47 12	45 31	43 53	42 20	40 49	39 21	37 58	36 39	35 22	34 08	1	30
1	40	53 19	51 32	49 50	48 10	46 33	44 59	43 30	42 02	40 38	39 16	37 57	36 41	1	40
1	50	55 29	53 46	52 05	50 28	48 53	47 21	45 51	44 23	43 00	41 38	40 18	39 01	1	50
2	00	57 21	55 41	54 04	52 29	50 56	49 25	47 56	46 30	45 06	43 45	42 25	41 07	2	00
2	10	58 57	57 20	55 46	54 13	52 42	51 14	49 47	48 22	46 59	45 38	44 18	43 01	2	10
2	20	60 19	58 47	57 15	55 45	54 16	52 50	51 25	50 00	48 38	47 19	46 00	44 42	2	20
2	30	61 30	60 00	58 32	57 04	55 38	54 14	52 51	51 28	50 08	48 49	47 31	46 14	2	30
2	40	62 31	61 05	59 39	58 14	56 51	55 28	54 07	52 46	51 27	50 10	48 52	47 36	2	40
2	50	63 24	62 00	60 37	59 15	57 54	56 33	55 13	53 54	52 37	51 21	50 05	48 50	2	50
3	00	64 09	62 48	61 28	60 07	58 49	57 30	56 13	54 55	53 39	52 24	51 09	49 56	3	00
3	10	64 48	63 30	62 12	60 54	59 36	58 20	57 04	55 48	54 33	53 20	52 06	50 54	3	10
3	20	65 21	64 04	62 48	61 33	60 18	59 03	57 48	56 34	55 21	54 09	52 57	51 45	3	20
3	30	65 49	64 34	63 21	62 07	60 53	59 40	58 28	57 15	56 03	54 52	53 41	52 30	3	30
3	40	66 12	65 00	63 47	62 36	61 23	60 13	59 01	57 50	56 39	55 29	54 20	53 10	3	40
3	50	66 32	65 21	64 11	63 00	61 50	60 40	59 29	58 20	57 10	56 02	54 53	53 45	3	50
4	00	66 47	65 38	64 29	63 20	62 11	61 03	59 54	58 46	57 37	56 29	55 22	54 14	4	00
4	10	67 00	65 52	64 44	63 36	62 28	61 21	60 13	59 06	57 59	56 52	55 46	54 39	4	10
4	20	67 09	66 02	64 55	63 49	62 42	61 36	60 30	59 23	58 17	57 12	56 06	55 00	4	20
4	30	67 14	66 08	65 04	63 58	62 53	61 47	60 42	59 37	58 32	57 27	56 22	55 17	4	30
4	40	67 17	66 13	65 08	64 04	63 00	61 55	60 51	59 46	58 43	57 38	56 35	55 30	4	40
4	50	67 18	66 14	65 10	64 07	63 04	62 00	60 57	59 53	58 49	57 46	56 43	55 39	4	50
5	00	67 16	66 12	65 10	64 07	63 05	62 02	60 59	59 56	58 54	57 52	56 48	55 46	5	00
5	10	67 11	66 09	65 07	64 05	63 03	62 01	60 59	59 57	58 54	57 52	56 50	55 48	5	10
5	20	67 03	66 02	65 01	64 00	62 58	61 57	60 56	59 54	58 53	57 51	56 50	55 48	5	20
5	30	66 54	65 54	64 53	63 52	62 51	61 51	60 50	59 48	58 47	57 46	56 45	55 44	5	30
5	40	66 43	65 42	64 42	63 41	62 41	61 42	60 41	59 40	58 40	57 39	56 38	55 38	5	40
5	50	66 29	65 29	64 29	63 29	62 29	61 29	60 29	59 28	58 29	57 29	56 28	55 29	5	50
6	00	66 13	65 13	64 14	63 14	62 14	61 14	60 15	59 14	58 14	57 15	56 15	55 16	6	00
6	10	65 54	64 54	63 55	62 56	61 56	60 57	59 57	58 58	57 59	56 59	56 00	55 00	6	10
6	20	65 32	64 33	63 34	62 35	61 36	60 37	59 37	58 39	57 39	56 41	55 41	54 41	6	20
6	30	65 10	64 10	63 11	62 12	61 13	60 14	59 15	58 15	57 17	56 18	55 19	54 19	6	30
6	40	64 43	63 44	62 45	61 46	60 47	59 49	58 49	57 50	56 52	55 53	54 54	53 55	6	40
6	50	64 15	63 16	62 16	61 18	60 19	59 20	58 21	57 22	56 23	55 25	54 26	53 27	6	50
7	00	63 44	62 44	61 45	60 46	59 47	58 49	57 50	56 51	55 52	54 54	53 56	52 56	7	00
7	10	63 09	62 10	61 11	60 11	59 12	58 14	57 15	56 16	55 17	54 19	53 21	52 22	7	10
7	20	62 32	61 32	60 33	59 33	58 35	57 35	56 36	55 37	54 40	53 42	52 42	51 44	7	20
7	30	61 51	60 52	59 52	58 53	57 54	56 54	55 55	54 56	53 57	52 59	52 01	51 03	7	30
7	40	61 08	60 09	59 08	58 08	57 09	56 09	55 11	54 11	53 13	52 15	51 16	50 18	7	40
7	50	60 21	59 20	58 20	57 20	56 21	55 21	54 22	53 23	52 24	51 26	50 28	49 30	7	50
8	00	59 29	58 28	57 27	56 28	55 28	54 28	53 28	52 29	51 31	50 33	49 35	48 37	8	00
8	10	58 33	57 32	56 31	55 30	54 31	53 31	52 32	51 33	50 34	49 37	48 38	47 40	8	10
8	20	57 35	56 32	55 31	54 30	53 29	52 29	51 30	50 31	49 33	48 34	47 37	46 40	8	20
8	30	56 29	55 26	54 25	53 24	52 23	51 23	50 24	49 25	48 26	47 28	46 30	45 33	8	30
8	40	55 18	54 16	53 14	52 13	51 12	50 12	49 12	48 13	47 15	46 17	45 19	44 23	8	40
8	50	54 02	52 59	51 57	50 56	49 55	48 55	47 55	46 56	45 58	44 51	44 04	43 07	8	50
9	00	52 40	51 37	50 34	49 33	48 31	47 32	46 32	45 34	44 34	43 39	42 42	41 46	9	00
9	10	51 12	50 07	49 05	48 03	47 02	46 03	45 03	44 05	43 07	42 11	41 15	40 19	9	10
9	20	49 35	48 31	47 29	46 27	45 26	44 26	43 28	42 30	41 33	40 37	39 41	38 47	9	20
9	30	47 50	46 46	45 44	44 42	43 42	42 43	41 45	40 48	39 51	38 56	38 01	37 08	9	30
9	40	45 57	44 53	43 51	42 51	41 50	40 52	39 55	38 58	38 03	37 09	36 15	35 24	9	40
9	50	43 55	42 52	41 49	40 50	39 50	38 53	37 57	37 01	36 08	35 15	34 23	33 32	9	50
10	00	41 42	40 39	39 38	38 40	37 42	36 45	35 50	34 56	34 04	33 13	32 23	31 34	10	00
10	10	39 17	38 16	37 17	36 20	35 24	34 29	33 35	32 43	31 53	31 04	30 16	29 28	10	10
10	20	36 43	35 43	34 45	33 50	32 56	32 04	31 12	30 23	29 34	28 47	28 02	27 17	10	20
10	30	33 54	32 58	32 02	31 10	30 18	29 28	28 39	27 52	27 07	26 23	25 39	24 58	10	30
10	40	30 53	30 00	29 08	28 18	27 29	26 43	25 58	25 14	24 31	23 51	23 11	22 32	10	40
10	50	27 40	26 50	26 01	25 15	24 31	23 48	23 07	22 27	21 48	21 12	20 36	20 00	10	50
11	00	24 13	23 28	22 45	22 03	21 23	20 45	20 08	19 32	18 58	18 24	17 53	17 21	11	00
11	10	20 34	19 55	19 16	18 41	18 06	17 33	17 00	16 29	16 00	15 32	15 04	14 38	11	10
11	20	16 43	16 11	15 39	15 09	14 40	14 12	13 46	13 20	12 56	12 34	12 11	11 49	11	20
11	30	12 42	12 16	11 52	11 29	11 07	10 46	10 25	10 05	9 47	9 29	9 12	8 55	11	30
11	40	8 33	8 16	7 58	7 43	7 28	7 13	7 00	6 46	6 34	6 22	6 11	5 58	11	40
11	50	4 18	4 10	4 01	3 53	3 45	3 38	3 31	3 24	3 17	3 12	3 06	3 00	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or east of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 8°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 8°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	4 18	4 06	3 56	3 46	3 36	3 28	3 19	3 11	3 03	2 56	2 49	2 42	0	10
0	20	8 32	8 10	7 49	7 29	7 10	6 53	6 37	6 20	6 05	5 50	5 37	5 23	0	20
0	30	12 39	12 07	11 36	11 07	10 40	10 15	9 49	9 26	9 04	8 42	8 22	8 03	0	30
0	40	16 36	15 55	15 15	14 39	14 03	13 30	12 58	12 27	11 58	11 31	11 04	10 38	0	40
0	50	20 21	19 31	18 45	18 00	17 18	16 37	15 59	15 22	14 47	14 13	13 40	13 09	0	50
1	00	23 51	22 55	22 02	21 12	20 23	19 36	18 52	18 10	17 29	16 49	16 12	15 36	1	00
1	10	27 08	26 07	25 08	24 12	23 18	22 27	21 38	20 50	20 04	19 20	18 37	17 56	1	10
1	20	30 09	29 04	28 00	27 01	26 02	25 06	24 13	23 21	22 30	21 41	20 56	20 10	1	20
1	30	32 55	31 47	30 41	29 37	28 35	27 36	26 39	25 43	24 49	23 57	23 07	22 18	1	30
1	40	35 27	34 16	33 07	32 01	30 57	29 54	28 54	27 56	26 59	26 04	25 10	24 18	1	40
1	50	37 46	36 34	35 23	34 14	33 07	32 04	31 01	30 00	29 00	28 03	27 07	26 12	1	50
2	00	39 52	38 38	37 26	36 16	35 09	34 02	32 58	31 55	30 54	29 54	28 56	27 58	2	00
2	10	41 45	40 31	39 18	38 07	36 59	35 52	34 46	33 41	32 38	31 37	30 37	29 37	2	10
2	20	43 27	42 13	41 00	39 49	38 39	37 31	36 25	35 19	34 15	33 13	32 12	31 10	2	20
2	30	44 59	43 45	42 33	41 21	40 12	39 03	37 56	36 49	35 44	34 41	33 39	32 36	2	30
2	40	46 22	45 09	43 56	42 45	41 36	40 26	39 19	38 12	37 07	36 02	34 59	33 56	2	40
2	50	47 36	46 23	45 12	44 01	42 51	41 42	40 35	39 28	38 21	37 16	36 13	35 09	2	50
3	00	48 42	47 30	46 19	45 08	44 00	42 51	41 43	40 36	39 30	38 24	37 20	36 16	3	00
3	10	49 41	48 30	47 19	46 10	45 01	43 52	42 45	41 38	40 32	39 26	38 22	37 18	3	10
3	20	50 34	49 23	48 14	47 05	45 56	44 48	43 41	42 35	41 28	40 23	39 18	38 14	3	20
3	30	51 20	50 11	49 02	47 53	46 45	45 38	44 31	43 25	42 19	41 13	40 09	39 04	3	30
3	40	52 01	50 52	49 44	48 37	47 29	46 22	45 16	44 09	43 04	41 59	40 54	39 50	3	40
3	50	52 36	51 29	50 21	49 15	48 08	47 01	45 55	44 49	43 45	42 40	41 35	40 30	3	50
4	00	53 07	52 00	50 53	49 47	48 40	47 35	46 29	45 25	44 20	43 15	42 11	41 07	4	00
4	10	53 33	52 27	51 20	50 15	49 10	48 05	47 00	45 55	44 50	43 46	42 42	41 39	4	10
4	20	53 55	52 49	51 44	50 39	49 34	48 30	47 26	46 21	45 17	44 13	43 10	42 06	4	20
4	30	54 12	53 07	52 03	50 59	49 55	48 51	47 47	46 43	45 39	44 36	43 33	42 29	4	30
4	40	54 26	53 22	52 18	51 15	50 11	49 07	48 05	47 01	45 58	44 55	43 52	42 48	4	40
4	50	54 37	53 33	52 30	51 26	50 24	49 20	48 18	47 15	46 13	45 10	44 08	43 05	4	50
5	00	54 43	53 41	52 38	51 35	50 33	49 30	48 28	47 26	46 23	45 21	44 19	43 16	5	00
5	10	54 46	53 44	52 43	51 41	50 38	49 36	48 34	47 33	46 31	45 29	44 27	43 25	5	10
5	20	54 47	53 45	52 43	51 42	50 40	49 39	48 37	47 36	46 34	45 34	44 32	43 30	5	20
5	30	54 44	53 43	52 41	51 40	50 39	49 39	48 37	47 36	46 35	45 34	44 33	43 31	5	30
5	40	54 37	53 37	52 36	51 36	50 35	49 35	48 34	47 32	46 32	45 32	44 31	43 29	5	40
5	50	54 28	53 28	52 28	51 28	50 27	49 27	48 27	47 27	46 27	45 26	44 26	43 25	5	50
6	00	54 16	53 16	52 16	51 16	50 17	49 17	48 17	47 17	46 17	45 17	44 17	43 17	6	00
6	10	54 01	53 01	52 01	51 02	50 02	49 03	48 03	47 04	46 04	45 05	44 05	43 05	6	10
6	20	53 42	52 43	51 44	50 45	49 46	48 46	47 47	46 47	45 49	44 50	43 50	42 50	6	20
6	30	53 20	52 22	51 23	50 24	49 26	48 27	47 28	46 29	45 30	44 31	43 32	42 33	6	30
6	40	52 56	51 58	50 58	50 01	49 02	48 03	47 05	46 06	45 08	44 09	43 10	42 11	6	40
6	50	52 29	51 31	50 32	49 34	48 35	47 37	46 39	45 41	44 42	43 44	42 46	41 48	6	50
7	00	51 58	51 00	50 01	49 04	48 06	47 08	46 10	45 12	44 14	43 16	42 18	41 20	7	00
7	10	51 24	50 26	49 28	48 30	47 32	46 35	45 37	44 40	43 42	42 45	41 47	40 49	7	10
7	20	50 47	49 48	48 51	47 53	46 55	45 58	45 01	44 03	43 07	42 09	41 13	40 15	7	20
7	30	50 06	49 08	48 10	47 13	46 15	45 18	44 21	43 24	42 28	41 31	40 35	39 38	7	30
7	40	49 21	48 23	47 26	46 29	45 31	44 35	43 38	42 42	41 46	40 49	39 54	38 58	7	40
7	50	48 32	47 35	46 38	45 41	44 44	43 47	42 51	41 55	41 00	40 04	39 09	38 13	7	50
8	00	47 40	46 42	45 46	44 49	43 53	42 57	42 01	41 05	40 10	39 15	38 20	37 26	8	00
8	10	46 43	45 46	44 50	43 54	42 57	42 02	41 07	40 12	39 17	38 22	37 29	36 34	8	10
8	20	45 42	44 45	43 49	42 53	41 58	41 03	40 09	39 14	38 20	37 27	36 33	35 39	8	20
8	30	44 37	43 40	42 44	41 49	40 54	40 00	39 06	38 12	37 19	36 26	35 33	34 40	8	30
8	40	43 27	42 31	41 35	40 41	39 46	38 52	38 00	37 06	36 13	35 22	34 30	33 38	8	40
8	50	42 11	41 16	40 21	39 28	38 33	37 41	36 48	35 56	35 04	34 13	33 23	32 32	8	50
9	00	40 51	39 56	39 02	38 09	37 16	36 24	35 32	34 41	33 51	33 01	32 11	31 21	9	00
9	10	39 24	38 31	37 38	36 45	35 53	35 02	34 12	33 21	32 32	31 44	30 56	30 06	9	10
9	20	37 53	37 00	36 08	35 17	34 26	33 36	32 47	31 58	31 10	30 23	29 36	28 49	9	20
9	30	36 15	35 24	34 33	33 43	32 53	32 05	31 17	30 30	29 43	28 57	28 12	27 26	9	30
9	40	34 32	33 42	32 52	32 03	31 15	30 28	29 42	28 56	28 11	27 27	26 44	26 00	9	40
9	50	32 42	31 53	31 05	30 19	29 32	28 47	28 03	27 18	26 36	25 53	25 11	24 29	9	50
10	00	30 46	29 59	29 12	28 28	27 44	27 00	26 18	25 36	24 55	24 14	23 35	22 55	10	00
10	10	28 43	27 57	27 14	26 31	25 49	25 08	24 27	23 48	23 09	22 32	21 54	21 16	10	10
10	20	26 33	25 51	25 09	24 29	23 49	23 11	22 34	21 56	21 19	20 44	20 09	19 35	10	20
10	30	24 18	23 38	22 59	22 21	21 45	21 09	20 34	20 00	19 26	18 53	18 21	17 49	10	30
10	40	21 55	21 18	20 43	20 08	19 34	19 02	18 30	17 58	17 28	16 58	16 29	16 00	10	40
10	50	19 26	18 54	18 21	17 50	17 19	16 50	16 21	15 54	15 26	15 00	14 34	14 08	10	50
11	00	16 52	16 22	15 54	15 27	15 01	14 35	14 09	13 44	13 21	12 58	12 35	12 12	11	00
11	10	14 12	13 47	13 23	12 59	12 37	12 16	11 53	11 33	11 13	10 53	10 34	10 14	11	10
11	20	11 28	11 08	10 48	10 28	10 10	9 52	9 35	9 18	9 02	8 45	8 30	8 15	11	20
11	30	8 39	8 24	8 09	7 54	7 40	7 27	7 13	7 01	6 49	6 36	6 24	6 12	11	30
11	40	5 48	5 37	5 28	5 17	5 08	4 59	4 51	4 41	4 33	4 25	4 17	4 09	11	40
11	50	2 54	2 50	2 44	2 39	2 34	2 30	2 26	2 21	2 17	2 13	2 09	2 05	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 8°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 8°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h	m.	o	o	o	o	o	o	o	o	o	o	o	o	h	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	2 35	2 30	2 24	2 18	2 12	2 08	2 02	1 57	1 52	1 48	1 44	1 39		10
	20	5 11	4 59	4 47	4 36	4 25	4 15	4 04	3 55	3 45	3 36	3 27	3 18		20
	30	7 43	7 25	7 08	6 52	6 36	6 20	6 05	5 51	5 36	5 23	5 10	4 56		30
	40	10 14	9 50	9 27	9 05	8 44	8 24	8 04	7 45	7 26	7 08	6 50	6 33		40
	50	12 39	12 10	11 43	11 16	10 49	10 24	10 01	9 37	9 14	8 51	8 30	8 09		50
1	00	15 00	14 27	13 54	13 23	12 52	12 23	11 54	11 26	10 59	10 32	10 08	9 42	1	00
	10	17 16	16 38	16 01	15 26	14 50	14 17	13 45	13 12	12 42	12 11	11 42	11 13		10
	20	19 26	18 44	18 03	17 23	16 44	16 07	15 31	14 56	14 21	13 47	13 14	12 42		20
	30	21 30	20 45	20 00	19 16	18 35	17 54	17 14	16 35	15 57	15 20	14 44	14 08		30
	40	23 28	22 39	21 51	21 04	20 19	19 35	18 52	18 10	17 29	16 48	16 10	15 31		40
	50	25 18	24 27	23 37	22 48	21 59	21 12	20 26	19 41	18 57	18 14	17 32	16 50		50
2	00	27 03	26 09	25 16	24 24	23 34	22 43	21 55	21 08	20 22	19 35	18 51	18 08	2	00
	10	28 40	27 44	26 50	25 55	25 02	24 11	23 20	22 30	21 41	20 54	20 07	19 21		10
	20	30 11	29 14	28 17	27 21	26 26	25 32	24 40	23 48	22 57	22 07	21 18	20 30		20
	30	31 35	30 37	29 39	28 41	27 45	26 50	25 56	25 02	24 09	23 17	22 26	21 36		30
	40	32 55	31 55	30 55	29 56	28 59	28 01	27 06	26 11	25 17	24 23	23 31	22 38		40
	50	34 06	33 06	32 05	31 05	30 06	29 08	28 11	27 15	26 19	25 24	24 31	23 36		50
3	00	35 14	34 11	33 11	32 10	31 10	30 11	29 13	28 15	27 18	26 22	25 26	24 31	3	00
	10	36 14	35 12	34 11	33 09	32 08	31 09	30 09	29 11	28 13	27 16	26 19	25 22		10
	20	37 10	36 07	35 05	34 03	33 02	32 02	31 02	30 02	29 04	28 05	27 08	26 10		20
	30	38 01	36 58	35 55	34 52	33 51	32 50	31 49	30 49	29 50	28 51	27 53	26 54		30
	40	38 46	37 43	36 40	35 38	34 35	33 34	32 32	31 33	30 33	29 33	28 34	27 34		40
	50	39 26	38 24	37 21	36 19	35 16	34 15	33 13	32 11	31 11	30 11	29 11	28 11		50
4	00	40 03	39 00	37 57	36 54	35 51	34 50	33 48	32 47	31 46	30 46	29 45	28 45	4	00
	10	40 35	39 32	38 30	37 27	36 24	35 22	34 20	33 19	32 17	31 16	30 16	29 15		10
	20	41 03	40 00	38 57	37 54	36 51	35 50	34 48	33 46	32 45	31 43	30 43	29 42		20
	30	41 26	40 23	39 21	38 19	37 16	36 14	35 12	34 10	33 09	32 07	31 06	30 04		30
	40	41 46	40 43	39 41	38 38	37 36	36 35	35 32	34 31	33 29	32 27	31 27	30 25		40
	50	42 02	41 00	39 57	38 56	37 53	36 52	35 50	34 48	33 46	32 44	31 43	30 42		50
5	00	42 15	41 12	40 10	39 09	38 06	37 05	36 03	35 02	34 00	32 58	31 58	30 56	5	00
	10	42 23	41 22	40 19	39 18	38 17	37 15	36 13	35 12	34 10	33 09	32 08	31 07		10
	20	42 28	41 27	40 25	39 24	38 23	37 22	36 20	35 19	34 18	33 17	32 16	31 14		20
	30	42 30	41 30	40 28	39 27	38 26	37 25	36 24	35 23	34 22	33 20	32 20	31 19		30
	40	42 29	41 28	40 28	39 27	38 26	37 25	36 24	35 24	34 22	33 22	32 22	31 20		40
	50	42 25	41 24	40 24	39 23	38 23	37 23	36 22	35 22	34 21	33 21	32 20	31 19		50
6	00	42 16	41 16	40 16	39 17	38 16	37 16	36 16	35 16	34 16	33 15	32 16	31 15	6	00
	10	42 05	41 06	40 06	39 07	38 06	37 07	36 06	35 07	34 07	33 08	32 08	31 08		10
	20	41 51	40 52	39 53	38 54	37 54	36 54	35 56	34 56	33 56	32 57	31 58	30 58		20
	30	41 34	40 35	39 36	38 38	37 38	36 39	35 41	34 41	33 42	32 43	31 45	30 45		30
	40	41 14	40 15	39 17	38 18	37 19	36 21	35 22	34 24	33 26	32 28	31 29	30 30		40
	50	40 50	39 52	38 54	37 56	36 57	35 59	35 01	34 04	33 06	32 08	31 10	30 12		50
7	00	40 23	39 25	38 28	37 31	36 32	35 35	34 37	33 40	32 43	31 45	30 48	29 50	7	00
	10	39 53	38 55	37 58	37 01	36 04	35 07	34 10	33 14	32 17	31 20	30 24	29 26		10
	20	39 19	38 23	37 26	36 29	35 33	34 37	33 41	32 44	31 47	30 51	29 56	29 00		20
	30	38 42	37 46	36 50	35 54	34 59	34 02	33 08	32 12	31 16	30 21	29 26	28 30		30
	40	38 02	37 06	36 11	35 16	34 20	33 26	32 31	31 37	30 41	29 46	28 52	27 58		40
	50	37 18	36 23	35 29	34 35	33 40	32 46	31 52	30 57	30 04	29 10	28 17	27 23		50
8	00	36 32	35 37	34 44	33 49	32 56	32 02	31 09	30 17	29 23	28 30	27 38	26 45	8	00
	10	35 41	34 47	33 55	33 01	32 09	31 16	30 24	29 32	28 39	27 48	26 57	26 05		10
	20	34 47	33 54	33 02	32 10	31 17	30 26	29 35	28 44	27 53	27 03	26 12	24 21		20
	30	33 49	32 57	32 06	31 15	30 24	29 34	28 44	27 54	27 04	26 14	25 26	24 36		30
	40	32 48	31 56	31 07	30 16	29 27	28 37	27 49	27 00	26 12	25 23	24 36	23 48		40
	50	31 41	30 52	30 04	29 15	28 26	27 39	26 50	26 03	25 16	24 29	23 43	22 58		50
9	00	30 33	29 45	28 56	28 09	27 22	26 36	25 50	25 03	24 18	23 32	22 48	22 03	9	00
	10	29 20	28 33	27 47	27 01	26 15	25 29	24 45	24 01	23 16	22 33	21 50	21 06		10
	20	28 03	27 18	26 33	25 48	25 04	24 21	23 38	22 54	22 12	21 30	20 48	20 07		20
	30	26 42	25 59	25 15	24 33	23 50	23 09	22 27	21 46	21 05	20 25	19 46	19 06		30
	40	25 17	24 35	23 54	23 13	22 33	21 53	21 13	20 34	19 55	19 17	18 39	18 01		40
	50	23 49	23 10	22 29	21 51	21 12	20 34	19 57	19 20	18 44	18 07	17 32	16 56		50
10	00	22 17	21 39	21 02	20 25	19 48	19 14	18 38	18 02	17 29	16 55	16 21	15 47	10	00
	10	20 41	20 05	19 31	18 56	18 21	17 48	17 15	16 42	16 10	15 38	15 07	14 36		10
	20	19 01	18 28	17 56	17 24	16 52	16 22	15 51	15 21	14 51	14 22	13 53	13 24		20
	30	17 19	16 48	16 18	15 49	15 20	14 51	14 23	13 56	13 29	13 02	12 36	12 09		30
	40	15 32	15 04	14 37	14 11	13 44	13 19	12 54	12 29	12 04	11 41	11 16	10 53		40
	50	13 42	13 18	12 54	12 30	12 07	11 44	11 22	11 00	10 39	10 17	9 56	9 35		50
11	00	11 51	11 29	11 09	10 48	10 27	10 07	9 48	9 29	9 10	8 52	8 33	8 16	11	00
	10	9 56	9 38	9 21	9 04	8 46	8 29	8 13	7 57	7 41	7 25	7 10	6 55		10
	20	8 00	7 46	7 31	7 16	7 03	6 49	6 36	6 23	6 11	5 58	5 46	5 34		20
	30	6 01	5 50	5 40	5 29	5 19	5 08	4 58	4 48	4 39	4 29	4 20	4 11		30
	40	4 02	3 54	3 47	3 40	3 33	3 26	3 20	3 13	3 06	3 00	2 53	2 48		40
	50	2 01	1 57	1 53	1 50	1 47	1 43	1 39	1 37	1 33	1 30	1 27	1 24		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 8°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 8°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	1 35	1 31	1 27	1 23	1 19	1 15	1 12	1 09	1 05	1 02	0 58		10	
	20	3 10	3 02	2 53	2 46	2 38	2 30	2 24	2 16	2 09	2 03	1 56		20	
	30	4 44	4 31	4 20	4 08	3 57	3 46	3 35	3 25	3 14	3 03	2 54		30	
	40	6 17	6 01	5 45	5 29	5 15	5 00	4 45	4 32	4 17	4 04	3 50		40	
	50	7 48	7 28	7 09	6 50	6 31	6 13	5 55	5 38	5 21	5 04	4 47		50	
1	00	9 18	8 54	8 31	8 08	7 46	7 24	7 03	6 43	6 22	6 02	5 43	1	00	
	10	10 46	10 18	9 51	9 26	9 00	8 35	8 11	7 47	7 23	7 00	6 38		10	
	20	12 11	11 40	11 10	10 41	10 12	9 45	9 17	8 50	8 23	7 56	7 31		20	
	30	13 34	13 00	12 27	11 55	11 22	10 52	10 21	9 51	9 21	8 52	8 24		30	
	40	14 54	14 17	13 41	13 05	12 31	11 57	11 23	10 51	10 19	9 46	9 15		40	
	50	16 11	15 31	14 52	14 14	13 37	13 00	12 24	11 48	11 13	10 39	10 05		50	
2	00	17 25	16 42	16 02	15 20	14 40	14 01	13 22	12 44	12 07	11 30	10 53	2	00	
	10	18 35	17 51	17 07	16 24	15 41	14 59	14 18	13 38	12 58	12 19	11 40		10	
	20	19 43	18 56	18 10	17 24	16 40	15 55	15 12	14 30	13 47	13 05	12 25		20	
	30	20 46	19 57	19 10	18 22	17 36	16 50	16 04	15 20	14 35	13 51	13 07		30	
	40	21 47	20 57	20 07	19 18	18 29	17 41	16 53	16 07	15 20	14 34	13 49		40	
	50	22 44	21 51	21 01	20 09	19 19	18 29	17 39	16 51	16 03	15 15	14 28		50	
3	00	23 38	22 44	21 51	20 58	20 06	19 14	18 23	17 34	16 44	15 54	15 05	3	00	
	10	24 27	23 32	22 38	21 44	20 51	19 58	19 05	18 14	17 22	16 31	15 41		10	
	20	25 14	24 18	23 22	22 27	21 32	20 38	19 44	18 51	17 59	17 06	16 14		20	
	30	25 57	25 00	24 03	23 07	22 11	21 15	20 20	19 26	18 32	17 38	16 45		30	
	40	26 36	25 39	24 41	23 44	22 47	21 50	20 54	20 00	19 04	18 08	17 14		40	
	50	27 13	26 14	25 16	24 17	23 20	22 23	21 25	20 29	19 33	18 37	17 41		50	
4	00	27 46	26 46	25 47	24 48	23 50	22 51	21 53	20 57	19 59	19 02	18 06	4	00	
	10	28 15	27 15	26 16	25 16	24 17	23 18	22 19	21 22	20 23	19 26	18 28		10	
	20	28 42	27 41	26 41	25 40	24 41	23 41	22 43	21 44	20 45	19 46	18 48		20	
	30	29 05	28 04	27 04	26 03	25 03	24 03	23 02	22 04	21 05	20 05	19 06		30	
	40	29 24	28 23	27 23	26 22	25 22	24 22	23 20	22 22	21 21	20 21	19 22		40	
	50	29 41	28 40	27 39	26 38	25 38	24 36	23 36	22 36	21 35	20 35	19 35		50	
5	00	29 55	28 54	27 53	26 51	25 50	24 50	23 49	22 49	21 48	20 48	19 47	5	00	
	10	30 06	29 04	28 04	27 02	26 01	25 00	23 59	22 59	21 58	20 57	19 57		10	
	20	30 13	29 12	28 11	27 10	26 09	25 07	24 07	23 07	22 05	21 05	20 04		20	
	30	30 18	29 17	28 16	27 15	26 14	25 12	24 11	23 12	22 11	21 10	20 09		30	
	40	30 20	29 19	28 18	27 17	26 17	25 15	24 15	23 15	22 13	21 13	20 12		40	
	50	30 19	29 18	28 18	27 16	26 17	25 16	24 15	23 15	22 13	21 13	20 12		50	
6	00	30 15	29 14	28 14	27 13	26 14	25 12	24 12	23 13	22 11	21 11	20 11	6	00	
	10	30 08	29 08	28 09	27 08	26 08	25 08	24 07	23 08	22 07	21 07	20 08		10	
	20	29 59	28 59	28 00	26 59	26 00	25 00	24 00	23 01	22 01	21 01	20 02		20	
	30	29 46	28 47	27 48	26 48	25 50	24 50	23 51	22 52	21 52	20 53	19 54		30	
	40	29 32	28 33	27 34	26 35	25 36	24 37	23 39	22 40	21 42	20 43	19 44		40	
	50	29 13	28 16	27 17	26 19	25 21	24 23	23 24	22 27	21 29	20 31	19 43		50	
7	00	28 53	27 55	26 58	26 01	25 03	24 06	23 08	22 11	21 13	20 16	19 19	7	00	
	10	28 30	27 33	26 36	25 39	24 43	23 46	22 49	21 53	20 56	19 59	19 03		10	
	20	28 04	27 07	26 12	25 16	24 20	23 24	22 28	21 33	20 37	19 41	18 45		20	
	30	27 36	26 40	25 45	24 50	23 55	23 00	22 04	21 11	20 15	19 20	18 25		30	
	40	27 04	26 09	25 15	24 21	23 27	22 33	21 39	20 46	19 51	18 57	18 04		40	
	50	26 30	25 37	24 44	23 50	22 57	22 04	21 10	20 19	19 25	18 33	17 40		50	
8	00	25 53	25 01	24 09	23 16	22 25	21 33	20 41	19 49	18 58	18 06	17 15	8	00	
	10	25 13	24 22	23 31	22 41	21 51	21 00	20 09	19 19	18 28	17 38	16 47		10	
	20	24 32	23 43	22 53	22 02	21 13	20 24	19 34	18 46	17 56	17 07	16 18		20	
	30	23 47	22 59	22 10	21 21	20 34	19 46	18 58	18 10	17 22	16 35	15 47		30	
	40	23 00	22 13	21 26	20 39	19 53	19 06	18 20	17 34	16 47	16 01	15 15		40	
	50	22 10	21 25	20 39	19 53	19 09	18 24	17 38	16 55	16 09	15 25	14 41		50	
9	00	21 18	20 34	19 50	19 06	18 22	17 39	16 56	16 13	15 30	14 48	14 05	9	00	
	10	20 23	19 41	18 58	18 16	17 34	16 53	16 11	15 31	14 49	14 09	13 28		10	
	20	19 26	18 45	18 05	17 24	16 44	16 04	15 25	14 46	14 07	13 27	12 48		20	
	30	18 27	17 48	17 09	16 30	15 52	15 14	14 36	14 00	13 23	12 45	12 08		30	
	40	17 24	16 48	16 11	15 35	14 58	14 22	13 47	13 12	12 36	12 02	11 26		40	
	50	16 20	15 46	15 12	14 37	14 03	13 29	12 55	12 23	11 49	11 16	10 43		50	
10	00	15 14	14 42	14 09	13 36	13 06	12 34	12 03	11 31	11 00	10 29	9 59	10	00	
	10	14 06	13 35	13 06	12 35	12 06	11 36	11 07	10 39	10 10	9 42	9 13		10	
	20	12 56	12 27	12 00	11 32	11 05	10 38	10 11	9 45	9 18	8 53	8 26		20	
	30	11 44	11 18	10 53	10 28	10 03	9 39	9 14	8 51	8 26	8 03	7 39		30	
	40	10 29	10 07	9 44	9 21	8 58	8 37	8 15	7 54	7 33	7 12	6 50		40	
	50	9 15	8 54	8 35	8 15	7 55	7 36	7 16	6 58	6 38	6 19	6 01		50	
11	00	7 58	7 40	7 23	7 06	6 49	6 32	6 16	6 00	5 43	5 27	5 11	11	00	
	10	6 40	6 25	6 11	5 57	5 43	5 28	5 15	5 01	4 46	4 33	4 20		10	
	20	5 21	5 09	4 57	4 47	4 35	4 24	4 13	4 01	3 50	3 39	3 29		20	
	30	4 02	3 53	3 44	3 35	3 26	3 18	3 09	3 01	2 53	2 45	2 37		30	
	40	2 42	2 36	2 30	2 24	2 18	2 13	2 07	2 01	1 56	1 51	1 46		40	
	50	1 21	1 17	1 14	1 12	1 09	1 06	1 03	1 00	0 57	0 55	0 52		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 9°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 9°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	8 45	8 10	7 38	7 10	6 45	6 22	6 01	5 42	5 24	5 09	4 54	4 39	0	10
0	20	17 04	15 58	14 58	14 05	13 17	12 32	11 53	11 16	10 41	10 11	9 42	9 14	0	20
0	30	24 37	23 08	21 47	20 34	19 26	18 24	17 28	16 34	15 46	15 01	14 19	13 40	0	30
0	40	31 18	29 33	27 56	26 27	25 05	23 49	22 39	21 34	20 34	19 37	18 44	17 54	0	40
0	50	37 01	35 07	33 21	31 42	30 10	28 45	27 24	26 10	25 00	23 53	22 52	21 53	0	50
1	00	41 52	39 54	38 03	36 18	34 40	33 08	31 41	30 19	29 02	27 49	26 41	25 35	1	00
1	10	45 59	44 00	42 07	40 21	38 40	37 03	35 33	34 06	32 43	31 25	30 12	29 01	1	10
1	20	49 27	47 29	45 37	43 50	42 08	40 30	38 56	37 27	36 02	34 40	33 23	32 08	1	20
1	30	52 21	50 27	48 37	46 51	45 09	43 31	41 57	40 27	39 00	37 36	36 16	34 59	1	30
1	40	54 49	52 58	51 12	49 28	47 47	46 11	44 37	43 06	41 38	40 14	38 53	37 34	1	40
1	50	56 53	55 07	53 24	51 42	50 05	48 30	46 57	45 27	43 59	42 37	41 12	39 53	1	50
2	00	58 41	56 58	55 18	53 40	52 04	50 31	49 00	47 31	46 04	44 40	43 18	41 58	2	00
2	10	60 12	58 33	56 56	55 21	53 49	52 18	50 48	49 20	47 55	46 31	45 10	43 50	2	10
2	20	61 29	59 54	58 20	56 49	55 18	53 50	52 22	50 57	49 33	48 11	46 50	45 30	2	20
2	30	62 36	61 05	59 35	58 05	56 38	55 11	53 46	52 22	51 00	49 39	48 19	47 01	2	30
2	40	63 33	62 04	60 37	59 11	57 46	56 22	54 59	53 37	52 16	50 57	49 38	48 21	2	40
2	50	64 21	62 56	61 31	60 08	58 45	57 24	56 03	54 43	53 23	52 06	50 49	49 32	2	50
3	00	65 02	63 40	62 18	60 58	59 38	58 17	56 59	55 40	54 23	53 06	51 51	50 35	3	00
3	10	65 38	64 18	62 59	61 40	60 21	59 04	57 47	56 31	55 15	54 00	52 45	51 32	3	10
3	20	66 08	64 50	63 33	62 16	61 00	59 44	58 29	57 14	56 00	54 46	53 33	52 21	3	20
3	30	66 32	65 16	64 01	62 47	61 33	60 20	59 06	57 52	56 39	55 28	54 16	53 04	3	30
3	40	66 52	65 39	64 25	63 13	62 00	60 48	59 37	58 25	57 14	56 02	54 52	53 42	3	40
3	50	67 08	65 57	64 46	63 35	62 23	61 13	60 02	58 52	57 42	56 33	55 24	54 14	3	50
4	00	67 21	66 11	65 01	63 52	62 42	61 33	60 24	59 15	58 07	56 58	55 49	54 41	4	00
4	10	67 29	66 22	65 13	64 05	62 57	61 49	60 42	59 33	58 26	57 19	56 12	55 05	4	10
4	20	67 36	66 29	65 22	64 15	63 08	62 02	60 55	59 48	58 41	57 36	56 30	55 23	4	20
4	30	67 39	66 34	65 27	64 21	63 16	62 11	61 05	59 59	58 54	57 49	56 43	55 38	4	30
4	40	67 40	66 34	65 30	64 25	63 21	62 16	61 12	60 07	59 02	57 58	56 53	55 49	4	40
4	50	67 37	66 33	65 30	64 26	63 23	62 19	61 15	60 11	59 08	58 04	57 01	55 56	4	50
5	00	67 32	66 30	65 27	64 24	63 21	62 18	61 16	60 13	59 10	58 07	57 04	56 01	5	00
5	10	67 25	66 23	65 21	64 19	63 17	62 16	61 13	60 10	59 09	58 07	57 04	56 02	5	10
5	20	67 16	66 15	65 13	64 12	63 11	62 09	61 08	60 06	59 05	58 03	57 01	55 59	5	20
5	30	67 05	66 04	65 03	64 02	63 02	62 00	60 59	59 58	58 57	57 56	56 56	55 54	5	30
5	40	66 51	65 51	64 50	63 50	62 49	61 49	60 48	59 47	58 47	57 47	56 47	55 45	5	40
5	50	66 34	65 34	64 34	63 35	62 35	61 35	60 35	59 34	58 35	57 35	56 35	55 35	5	50
6	00	66 16	65 16	64 16	63 18	62 18	61 19	60 18	59 18	58 19	57 20	56 19	55 20	6	00
6	10	65 56	64 56	63 57	62 57	61 58	60 59	59 59	59 00	58 01	57 02	56 02	55 03	6	10
6	20	65 32	64 33	63 34	62 35	61 35	60 37	59 37	58 38	57 40	56 41	55 41	54 42	6	20
6	30	65 06	64 08	63 09	62 10	61 10	60 12	59 13	58 14	57 16	56 17	55 17	54 19	6	30
6	40	64 38	63 39	62 40	61 42	60 43	59 44	58 45	57 47	56 48	55 50	54 51	53 53	6	40
6	50	64 08	63 08	62 10	61 11	60 12	59 14	58 15	57 17	56 18	55 20	54 22	53 23	6	50
7	00	63 34	62 36	61 36	60 37	59 39	58 41	57 42	56 43	55 45	54 47	53 49	52 50	7	00
7	10	62 58	61 59	61 00	60 00	59 02	58 04	57 05	56 07	55 09	54 11	53 12	52 15	7	10
7	20	62 18	61 19	60 20	59 21	58 22	57 24	56 25	55 27	54 29	53 31	52 33	51 36	7	20
7	30	61 36	60 37	59 37	58 38	57 39	56 41	55 42	54 43	53 46	52 48	51 50	50 53	7	30
7	40	60 51	59 50	58 51	57 52	56 52	55 55	54 56	53 57	53 00	52 02	51 03	50 06	7	40
7	50	60 01	59 01	58 01	57 02	56 02	55 04	54 05	53 06	52 09	51 11	50 14	49 16	7	50
8	00	59 07	58 07	57 07	56 08	55 08	54 09	53 11	52 12	51 15	50 17	49 19	48 22	8	00
8	10	58 10	57 09	56 08	55 09	54 10	53 11	52 12	51 14	50 15	49 18	48 21	47 24	8	10
8	20	57 08	56 07	55 06	54 06	53 06	52 07	51 09	50 10	49 13	48 15	47 18	46 21	8	20
8	30	56 01	55 00	53 59	52 58	51 59	50 59	50 01	49 02	48 04	47 08	46 11	45 15	8	30
8	40	54 49	53 47	52 46	51 45	50 46	49 46	48 48	47 49	46 52	45 55	44 58	44 03	8	40
8	50	53 30	52 29	51 28	50 27	49 27	48 28	47 29	46 31	45 34	44 37	43 41	42 45	8	50
9	00	52 06	51 04	50 03	49 02	48 03	47 04	46 05	45 07	44 11	43 14	42 19	41 24	9	00
9	10	50 36	49 33	48 32	47 31	46 32	45 33	44 35	43 37	42 41	41 45	40 51	39 56	9	10
9	20	48 58	47 56	46 54	45 53	44 55	43 57	42 58	42 01	41 06	40 11	39 18	38 23	9	20
9	30	47 12	46 09	45 08	44 08	43 09	42 12	41 15	40 18	39 24	38 30	37 36	36 44	9	30
9	40	45 18	44 15	43 15	42 15	41 17	40 20	39 24	38 28	37 35	36 43	35 49	34 58	9	40
9	50	43 14	42 12	41 13	40 13	39 16	38 20	37 25	36 32	35 39	34 48	33 57	33 07	9	50
10	00	41 01	40 00	39 01	38 04	37 07	36 13	35 19	34 26	33 36	32 47	31 57	31 09	10	00
10	10	38 36	37 37	36 39	35 44	34 49	33 57	33 05	32 13	31 25	30 37	29 51	29 04	10	10
10	20	36 01	35 04	34 08	33 14	32 21	31 31	30 42	29 53	29 07	28 22	27 37	26 51	10	20
10	30	33 13	32 19	31 26	30 35	29 45	28 57	28 10	27 24	26 41	25 58	25 16	24 35	10	30
10	40	30 15	29 23	28 33	27 44	26 58	26 14	25 30	24 47	24 07	23 27	22 49	22 11	10	40
10	50	27 03	26 15	25 29	24 45	24 02	23 21	22 41	22 03	21 25	20 49	20 15	19 41	10	50
11	00	23 39	22 56	22 15	21 35	20 56	20 20	19 45	19 10	18 37	18 05	17 34	17 04	11	00
11	10	20 05	19 26	18 51	18 15	17 42	17 11	16 40	16 11	15 42	15 15	14 49	14 23	11	10
11	20	16 18	15 47	15 16	14 48	14 21	13 55	13 29	13 05	12 41	12 19	11 57	11 36	11	20
11	30	12 22	11 58	11 35	11 13	10 52	10 32	10 12	9 53	9 36	9 19	9 02	8 45	11	30
11	40	8 20	8 03	7 47	7 32	7 18	7 04	6 51	6 38	6 26	6 15	6 03	5 53	11	40
11	50	4 11	4 03	3 54	3 47	3 40	3 33	3 26	3 20	3 14	3 08	3 03	2 57	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 9°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 9°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	4 26	4 15	4 03	3 52	3 43	3 34	3 24	3 16	3 08	3 00	2 52	2 46	0	10
0	20	8 49	8 29	8 03	7 43	7 22	7 04	6 47	6 30	6 14	5 58	5 44	5 30	0	20
0	30	13 03	12 20	11 57	11 26	10 58	10 31	10 05	9 41	9 17	8 54	8 33	8 13	0	30
0	40	17 08	16 24	15 42	15 03	14 26	13 51	13 17	12 45	12 15	11 47	11 19	10 52	0	40
0	50	20 58	20 05	19 16	18 30	17 45	17 03	16 23	15 45	15 07	14 31	13 58	13 26	0	50
1	00	24 33	23 34	22 38	21 45	20 54	20 06	19 19	18 35	17 53	17 11	16 32	15 55	1	00
1	10	27 53	26 48	25 47	24 48	23 53	22 59	22 07	21 18	20 30	19 44	19 00	18 17	1	10
1	20	30 56	29 47	28 42	27 39	26 39	25 40	24 44	23 51	22 58	22 08	21 20	20 33	1	20
1	30	33 44	32 32	31 24	30 17	29 13	28 12	27 12	26 14	25 19	24 25	23 33	22 43	1	30
1	40	36 17	35 03	33 52	32 43	31 36	30 32	29 29	28 29	27 30	26 33	25 37	24 44	1	40
1	50	38 35	37 19	36 07	34 56	33 47	32 41	31 36	30 33	29 32	28 32	27 34	26 38	1	50
2	00	40 40	39 23	38 10	36 58	35 48	34 40	33 33	32 29	31 26	30 25	29 24	28 26	2	00
2	10	42 32	41 15	40 01	38 49	37 38	36 29	35 22	34 15	33 11	32 08	31 05	30 06	2	10
2	20	44 13	42 57	41 43	40 29	39 18	38 08	37 00	35 54	34 48	33 43	32 39	31 38	2	20
2	30	45 43	44 28	43 13	42 01	40 49	39 40	38 31	37 23	36 17	35 11	34 07	33 04	2	30
2	40	47 05	45 50	44 36	43 23	42 12	41 01	39 53	38 45	37 38	36 32	35 27	34 23	2	40
2	50	48 17	47 03	45 50	44 37	43 26	42 16	41 07	39 59	38 51	37 45	36 40	35 35	2	50
3	00	49 22	48 08	46 55	45 44	44 34	43 24	42 15	41 07	39 59	38 53	37 47	36 42	3	00
3	10	50 18	49 06	47 55	46 43	45 34	44 24	43 15	42 08	41 00	39 53	38 47	37 43	3	10
3	20	51 09	49 58	48 47	47 36	46 27	45 19	44 10	43 02	41 56	40 49	39 43	38 38	3	20
3	30	51 53	50 43	49 33	48 23	47 15	46 07	44 59	43 52	42 44	41 38	40 33	39 28	3	30
3	40	52 32	51 23	50 14	49 05	47 56	46 49	45 42	44 35	43 29	42 23	41 17	40 11	3	40
3	50	53 05	51 56	50 49	49 40	48 33	47 26	46 20	45 13	44 07	43 01	41 57	40 52	3	50
4	00	53 34	52 26	51 18	50 11	49 05	47 59	46 53	45 47	44 41	43 36	42 31	41 26	4	00
4	10	53 58	52 51	51 45	50 38	49 33	48 27	47 21	46 16	45 11	44 06	43 01	41 57	4	10
4	20	54 17	53 12	52 06	51 00	49 55	48 50	47 45	46 40	45 36	44 31	43 27	42 23	4	20
4	30	54 31	53 28	52 24	51 18	50 13	49 10	48 05	47 01	45 56	44 53	43 49	42 46	4	30
4	40	54 45	53 40	52 37	51 32	50 29	49 24	48 21	47 17	46 14	45 10	44 07	43 04	4	40
4	50	54 53	53 50	52 47	51 43	50 39	49 36	48 33	47 30	46 27	45 24	44 21	43 18	4	50
5	00	54 58	53 56	52 53	51 50	50 47	49 44	48 41	47 39	46 36	45 34	44 31	43 29	5	00
5	10	54 59	53 57	52 55	51 53	50 51	49 49	48 47	47 44	46 42	45 40	44 38	43 36	5	10
5	20	54 58	53 56	52 55	51 53	50 52	49 50	48 48	47 47	46 45	45 43	44 42	43 40	5	20
5	30	54 53	53 52	52 50	51 50	50 48	49 48	48 46	47 45	46 43	45 42	44 41	43 40	5	30
5	40	54 45	53 45	52 44	51 43	50 43	49 42	48 41	47 41	46 40	45 38	44 37	43 37	5	40
5	50	54 34	53 34	52 34	51 34	50 34	49 34	48 33	47 33	46 33	45 32	44 31	43 31	5	50
6	00	54 20	53 20	52 21	51 21	50 21	49 21	48 21	47 22	46 22	45 21	44 21	43 22	6	00
6	10	54 03	53 04	52 04	51 05	50 06	49 06	48 06	47 07	46 07	45 08	44 08	43 09	6	10
6	20	53 44	52 44	51 45	50 46	49 47	48 48	47 49	46 50	45 50	44 51	43 52	42 53	6	20
6	30	53 20	52 21	51 22	50 24	49 25	48 27	47 27	46 29	45 30	44 32	43 33	42 34	6	30
6	40	52 54	51 56	50 57	49 59	49 00	48 02	47 04	46 05	45 06	44 08	43 10	42 12	6	40
6	50	52 25	51 26	50 28	49 30	48 32	47 34	46 36	45 38	44 41	43 43	42 45	41 47	6	50
7	00	51 53	50 55	49 56	48 59	48 01	47 03	46 06	45 08	44 11	43 13	42 15	41 18	7	00
7	10	51 16	50 19	49 21	48 24	47 26	46 29	45 32	44 34	43 37	42 40	41 43	40 46	7	10
7	20	50 38	49 40	48 43	47 46	46 48	45 51	44 55	43 57	43 01	42 04	41 07	40 11	7	20
7	30	49 55	48 57	48 01	47 04	46 07	45 10	44 14	43 17	42 21	41 25	40 28	39 33	7	30
7	40	49 09	48 12	47 15	46 18	45 22	44 26	43 29	42 34	41 38	40 42	39 47	38 51	7	40
7	50	48 19	47 22	46 26	45 30	44 34	43 38	42 41	41 46	40 51	39 56	39 01	38 06	7	50
8	00	47 25	46 28	45 33	44 36	43 41	42 46	41 49	40 55	40 00	39 06	38 11	37 17	8	00
8	10	46 27	45 31	44 35	43 40	42 44	41 50	40 54	40 00	39 06	38 13	37 19	36 25	8	10
8	20	45 25	44 30	43 34	42 39	41 43	40 49	39 55	39 01	38 08	37 15	36 22	35 29	8	20
8	30	44 19	43 23	42 28	41 33	40 40	39 45	38 52	37 59	37 07	36 14	35 22	34 31	8	30
8	40	43 07	42 12	41 18	40 23	39 30	38 37	37 44	36 53	36 00	35 09	34 18	33 27	8	40
8	50	41 51	40 56	40 03	39 10	38 16	37 25	36 32	35 41	34 50	33 59	33 10	32 20	8	50
9	00	40 29	39 35	38 42	37 49	36 58	36 07	35 16	34 26	33 36	32 46	31 57	31 09	9	00
9	10	39 02	38 10	37 17	36 26	35 35	34 45	33 54	33 07	32 17	31 29	30 42	29 54	9	10
9	20	37 31	36 39	35 47	34 57	34 08	33 18	32 30	31 42	30 55	30 08	29 22	28 36	9	20
9	30	35 53	35 02	34 12	33 22	32 34	31 46	30 59	30 13	29 28	28 42	27 58	27 14	9	30
9	40	34 09	33 19	32 31	31 43	30 57	30 10	29 24	28 40	27 56	27 13	26 30	25 47	9	40
9	50	32 18	31 31	30 44	29 58	29 13	28 29	27 45	27 02	26 19	25 39	24 58	24 17	9	50
10	00	30 23	29 36	28 52	28 07	27 25	26 42	26 01	25 20	24 39	24 00	23 21	22 43	10	00
10	10	28 20	27 36	26 54	26 11	25 30	24 51	24 11	23 33	22 55	22 17	21 41	21 05	10	10
10	20	26 12	25 30	24 50	24 10	23 32	22 55	22 18	21 42	21 05	20 31	19 57	19 24	10	20
10	30	23 56	23 17	22 40	22 03	21 28	20 53	20 19	19 46	19 13	18 41	18 10	17 38	10	30
10	40	21 35	21 00	20 25	19 51	19 19	18 47	18 15	17 45	17 16	16 46	16 17	15 50	10	40
10	50	19 08	18 36	18 05	17 35	17 06	16 37	16 09	15 42	15 15	14 49	14 24	13 58	10	50
11	00	16 36	16 07	15 39	15 14	14 48	14 22	13 58	13 34	13 11	12 48	12 26	12 04	11	00
11	10	13 58	13 34	13 10	12 48	12 26	12 05	11 44	11 24	11 05	10 48	10 26	10 07	11	10
11	20	11 16	10 56	10 38	10 19	10 02	9 44	9 27	9 10	8 55	8 41	8 25	8 09	11	20
11	30	8 30	8 16	8 00	7 47	7 34	7 20	7 07	6 55	6 42	6 31	6 19	6 08	11	30
11	40	5 43	5 32	5 22	5 12	5 04	4 54	4 46	4 37	4 30	4 22	4 14	4 07	11	40
11	50	2 51	2 46	2 42	2 37	2 32	2 27	2 23	2 20	2 15	2 11	2 07	2 03	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 9°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 9°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	2 39	2 33	2 28	2 21	2 15	2 10	2 05	2 00	1 55	1 50	1 45	1 41		10
	20	5 17	5 05	4 53	4 41	4 30	4 19	4 08	3 59	3 49	3 40	3 30	3 21		20
	30	7 53	7 35	7 16	6 59	6 43	6 27	6 12	5 56	5 42	5 28	5 14	5 01		30
	40	10 26	10 02	9 38	9 15	8 53	8 32	8 12	7 52	7 33	7 15	6 57	6 39		40
	50	12 55	12 25	11 56	11 28	11 01	10 35	10 10	9 46	9 23	9 00	8 37	8 16		50
1	00	15 18	14 43	14 09	13 37	13 06	12 35	12 06	11 37	11 09	10 42	10 16	9 50	1	00
	10	17 37	16 57	16 18	15 41	15 05	14 31	13 57	13 24	12 53	12 22	11 52	11 22		10
	20	19 48	19 04	18 22	17 41	17 01	16 22	15 45	15 08	14 33	13 59	13 25	12 52		20
	30	21 53	21 06	20 21	19 35	18 52	18 10	17 29	16 49	16 10	15 32	14 55	14 19		30
	40	23 52	23 01	22 12	21 25	20 38	19 53	19 09	18 26	17 43	17 02	16 22	15 44		40
	50	25 43	24 50	23 58	23 08	22 18	21 31	20 43	19 57	19 13	18 28	17 45	17 04		50
2	00	27 28	26 33	25 39	24 46	23 54	23 03	22 14	21 25	20 38	19 51	19 05	18 21	2	00
	10	29 06	28 09	27 12	26 18	25 23	24 30	23 38	22 47	21 58	21 08	20 21	19 34		10
	20	30 38	29 38	28 40	27 43	26 47	25 52	24 58	24 06	23 14	22 23	21 33	20 43		20
	30	32 02	31 01	30 02	29 04	28 06	27 09	26 14	25 20	24 26	23 32	22 41	21 50		30
	40	33 20	32 19	31 18	30 18	29 19	28 21	27 25	26 28	25 33	24 38	23 45	22 53		40
	50	34 32	33 29	32 28	31 27	30 27	29 29	28 31	27 33	26 36	25 41	24 46	23 51		50
3	00	35 38	34 35	33 33	32 32	31 30	30 31	29 31	28 32	27 35	26 38	25 42	24 46	3	00
	10	36 38	35 35	34 33	33 30	32 28	31 28	30 27	29 28	28 30	27 31	26 33	25 37		10
	20	37 33	36 29	35 27	34 24	33 22	32 21	31 19	30 19	29 19	28 21	27 22	26 24		20
	30	38 23	37 18	36 15	35 12	34 10	33 08	32 07	31 06	30 05	29 06	28 07	27 08		30
	40	39 07	38 03	37 00	35 56	34 54	33 51	32 50	31 48	30 47	29 47	28 47	27 48		40
	50	39 47	38 43	37 40	36 37	35 33	34 31	33 29	32 27	31 26	30 25	29 25	28 25		50
4	00	40 21	39 18	38 15	37 11	36 08	35 05	34 03	33 01	32 00	30 58	29 58	28 58	4	00
	10	40 52	39 49	38 45	37 43	36 39	35 37	34 34	33 32	32 31	31 29	30 27	29 27		10
	20	41 19	40 15	39 13	38 10	37 06	36 04	35 01	33 58	32 57	31 55	30 54	29 52		20
	30	41 42	40 38	39 36	38 33	37 29	36 27	35 25	34 23	33 20	32 19	31 17	30 16		30
	40	42 00	40 57	39 55	38 52	37 49	36 47	35 45	34 42	33 40	32 39	31 36	30 35		40
	50	42 15	41 12	40 10	39 08	38 05	37 03	36 01	34 58	33 56	32 54	31 52	30 52		50
5	00	42 26	41 24	40 22	39 20	38 17	37 15	36 13	35 11	34 10	33 08	32 05	31 04	5	00
	10	42 33	41 31	40 29	39 28	38 26	37 24	36 22	35 20	34 19	33 18	32 15	31 14		10
	20	42 38	41 36	40 35	39 33	38 31	37 30	36 29	35 27	34 25	33 23	32 22	31 21		20
	30	42 38	41 37	40 36	39 34	38 33	37 33	36 31	35 30	34 28	33 28	32 26	31 25		30
	40	42 36	41 35	40 35	39 33	38 32	37 31	36 31	35 29	34 29	33 28	32 27	31 26		40
	50	42 30	41 30	40 29	39 29	38 28	37 28	36 27	35 27	34 26	33 25	32 25	31 24		50
6	00	42 21	41 21	40 21	39 21	38 20	37 21	36 20	35 20	34 20	33 20	32 20	31 19	6	00
	10	42 08	41 09	40 10	39 10	38 10	37 11	36 10	35 11	34 11	33 11	32 11	31 12		10
	20	41 53	40 54	39 56	38 56	37 56	36 57	35 58	34 58	33 59	32 59	32 00	31 01		20
	30	41 35	40 36	39 38	38 38	37 39	36 41	35 42	34 43	33 44	32 45	31 46	30 47		30
	40	41 13	40 15	39 17	38 18	37 19	36 22	35 23	34 25	33 27	32 27	31 29	30 31		40
	50	40 48	39 50	38 53	37 56	36 57	35 59	35 02	34 03	33 05	32 08	31 10	30 12		50
7	00	40 20	39 23	38 26	37 28	36 30	35 34	34 36	33 39	32 41	31 44	30 47	29 50	7	00
	10	39 48	38 52	37 56	36 58	36 02	35 05	34 08	33 12	32 15	31 19	30 22	29 26		10
	20	39 14	38 18	37 22	36 26	35 30	34 34	33 37	32 41	31 46	30 50	29 54	28 59		20
	30	38 36	37 41	36 46	35 50	34 54	33 59	33 04	32 08	31 13	30 18	29 23	28 29		30
	40	37 56	37 00	36 05	35 11	34 16	33 22	32 27	31 32	30 38	29 44	28 49	27 56		40
	50	37 11	36 17	35 23	34 28	33 34	32 41	31 47	30 54	30 00	29 06	28 13	27 20		50
8	00	36 23	35 30	34 36	33 43	32 49	31 56	31 04	30 11	29 19	28 27	27 34	26 42	8	00
	10	35 32	34 39	33 47	32 55	32 02	31 10	30 18	29 26	28 34	27 43	26 52	26 02		10
	20	34 37	33 44	32 52	32 02	31 11	30 20	29 29	28 38	27 47	26 57	26 07	25 17		20
	30	33 38	32 47	31 57	31 06	30 16	29 26	28 36	27 47	26 57	26 09	25 20	24 31		30
	40	32 36	31 47	30 57	30 08	29 19	28 30	27 41	26 52	26 05	25 17	24 30	23 43		40
	50	31 31	30 42	29 54	29 06	28 18	27 30	26 43	25 56	25 10	24 23	23 37	22 52		50
9	00	30 21	29 33	28 46	27 59	27 12	26 27	25 41	24 56	24 10	23 26	22 42	21 57	9	00
	10	29 08	28 21	27 36	26 51	26 05	25 21	24 37	23 52	23 09	22 26	21 43	21 00		10
	20	27 51	27 06	26 22	25 38	24 55	24 12	23 29	22 47	22 05	21 23	20 42	20 01		20
	30	26 30	25 47	25 04	24 22	23 41	23 00	22 18	21 39	20 58	20 18	19 39	19 00		30
	40	25 05	24 24	23 43	23 03	22 24	21 44	21 05	20 26	19 48	19 10	18 33	17 56		40
	50	23 37	22 58	22 19	21 40	21 03	20 25	19 49	19 12	18 36	18 00	17 25	16 50		50
10	00	22 05	21 28	20 52	20 15	19 40	19 04	18 30	17 56	17 22	16 48	16 15	15 42	10	00
	10	20 29	19 54	19 21	18 46	18 13	17 41	17 08	16 36	16 04	15 33	15 02	14 31		10
	20	18 50	18 18	17 46	17 14	16 44	16 14	15 43	15 14	14 45	14 16	13 47	13 19		20
	30	17 08	16 38	16 09	15 41	15 12	14 44	14 17	13 50	13 23	12 56	12 30	12 05		30
	40	15 22	14 55	14 30	14 03	13 38	13 13	12 48	12 23	11 59	11 35	11 11	10 49		40
	50	13 34	13 10	12 46	12 23	12 00	11 38	11 16	10 55	10 33	10 13	9 51	9 31		50
11	00	11 43	11 22	11 02	10 42	10 22	10 02	9 43	9 25	9 06	8 48	8 30	8 13	11	00
	10	9 49	9 32	9 14	8 57	8 41	8 25	8 09	7 53	7 37	7 23	7 07	6 52		10
	20	7 54	7 40	7 26	7 13	6 59	6 46	6 33	6 20	6 08	5 55	5 43	5 31		20
	30	5 57	5 46	5 35	5 26	5 15	5 06	4 56	4 46	4 37	4 27	4 18	4 09		30
	40	3 59	3 51	3 45	3 38	3 31	3 24	3 18	3 11	3 05	2 58	2 52	2 46		40
	50	2 00	1 56	1 53	1 49	1 45	1 42	1 38	1 35	1 33	1 30	1 26	1 24		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 9°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 9°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.				
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.			
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00			
	10	1 37	1 32	1 28	1 25	1 21	1 17	1 13	1 09	1 05	1 02	0 59		10			
	20	3 13	3 04	2 56	2 48	2 40	2 33	2 25	2 18	2 11	2 04	1 57		20			
	30	4 48	4 35	4 23	4 11	4 00	3 49	3 37	3 27	3 16	3 05	2 55		30			
	40	6 22	6 05	5 49	5 34	5 18	5 03	4 49	4 35	4 20	4 07	3 53		40			
	50	7 54	7 34	7 14	6 55	6 36	6 17	5 59	5 41	5 23	5 07	4 50		50			
1	00	9 26	9 01	8 37	8 14	7 52	7 29	7 08	6 47	6 26	6 06	5 46	1	00			
	10	10 54	10 26	9 59	9 32	9 06	8 41	8 16	7 52	7 28	7 04	6 41		10			
	20	12 20	11 49	11 18	10 49	10 19	9 51	9 22	8 55	8 28	8 01	7 35		20			
	30	13 44	13 10	12 36	12 02	11 30	10 59	10 27	9 57	9 27	8 57	8 29		30			
	40	15 05	14 28	13 51	13 15	12 39	12 04	11 30	10 57	10 24	9 52	9 20		40			
	50	16 22	15 42	15 03	14 24	13 45	13 08	12 31	11 55	11 19	10 44	10 10		50			
2	00	17 36	16 54	16 12	15 31	14 50	14 09	13 30	12 51	12 13	11 36	10 59	2	00			
	10	18 48	18 02	17 17	16 34	15 50	15 08	14 26	13 45	13 04	12 24	11 45		10			
	20	19 56	19 08	18 21	17 35	16 50	16 04	15 21	14 37	13 55	13 12	12 30		20			
	30	21 00	20 11	19 22	18 34	17 45	16 58	16 12	15 27	14 42	13 57	13 14		30			
	40	22 00	21 09	20 19	19 29	18 39	17 50	17 02	16 14	15 28	14 41	13 55		40			
	50	22 57	22 05	21 12	20 21	19 29	18 38	17 49	17 00	16 11	15 22	14 34		50			
3	00	23 51	22 57	22 02	21 19	20 17	19 24	18 33	17 42	16 51	16 01	15 12	3	00			
	10	24 41	23 45	22 50	21 56	21 00	20 07	19 14	18 21	17 30	16 38	15 47		10			
	20	25 26	24 30	23 34	22 38	21 42	20 47	19 53	19 00	18 06	17 13	16 20		20			
	30	26 09	25 12	24 14	23 18	22 21	21 25	20 29	19 34	18 39	17 45	16 51		30			
	40	26 49	25 50	24 52	23 54	22 56	22 00	21 03	20 07	19 11	18 16	17 21		40			
	50	27 24	26 25	25 26	24 28	23 29	22 31	21 34	20 36	19 40	18 43	17 47		50			
4	00	27 56	26 57	25 57	24 58	23 59	23 00	22 02	21 03	20 06	19 08	18 11	4	00			
	10	28 26	27 26	26 25	25 26	24 26	23 26	22 27	21 28	20 30	19 32	18 34		10			
	20	28 52	27 51	26 50	25 50	24 50	23 49	22 50	21 51	20 51	19 52	18 54		20			
	30	29 14	28 13	27 12	26 12	25 11	24 10	23 11	22 11	21 11	20 11	19 12		30			
	40	29 33	28 33	27 31	26 31	25 29	24 28	23 28	22 27	21 27	20 27	19 27		40			
	50	29 50	28 49	27 46	26 45	25 44	24 43	23 43	22 42	21 42	20 41	19 41		50			
5	00	30 02	29 02	28 00	26 59	25 57	24 56	23 56	22 55	21 54	20 52	19 52	5	00			
	10	30 12	29 12	28 10	27 09	26 07	25 06	24 05	23 03	22 03	21 02	20 01		10			
	20	30 20	29 19	28 17	27 16	26 14	25 13	24 12	23 11	22 10	21 08	20 07		20			
	30	30 24	29 23	28 21	27 20	26 19	25 18	24 16	23 16	22 15	21 13	20 13		30			
	40	30 25	29 24	28 23	27 22	26 20	25 19	24 19	23 18	22 18	21 16	20 15		40			
	50	30 24	29 23	28 21	27 21	26 20	25 19	24 18	23 18	22 17	21 16	20 15		50			
6	00	30 19	29 18	28 18	27 17	26 17	25 16	24 17	23 16	22 15	21 15	20 14	6	00			
	10	30 11	29 12	28 11	27 12	26 11	25 11	24 11	23 10	22 10	21 09	20 09		10			
	20	30 01	29 02	28 02	27 02	26 02	25 02	24 03	23 03	22 04	21 03	20 04		20			
	30	29 48	28 50	27 50	26 51	25 52	24 52	23 53	22 54	21 55	20 55	19 56		30			
	40	29 33	28 34	27 35	26 37	25 38	24 39	23 41	22 42	21 43	20 44	19 45		40			
	50	29 14	28 17	27 19	26 20	25 22	24 23	23 26	22 28	21 30	20 31	19 33		50			
7	00	28 53	27 56	26 58	25 59	25 04	24 06	23 10	22 12	21 15	20 16	19 19	7	00			
	10	28 29	27 33	26 36	25 39	24 43	23 46	22 50	21 53	20 57	20 00	19 03		10			
	20	28 03	27 07	26 10	25 15	24 20	23 24	22 29	21 33	20 37	19 41	18 45		20			
	30	27 33	26 39	25 43	24 49	23 54	22 59	22 04	21 10	20 15	19 20	18 25		30			
	40	27 02	26 08	25 13	24 20	23 26	22 32	21 38	20 45	19 51	18 57	18 04		40			
	50	26 28	25 35	24 41	23 49	22 56	22 03	21 10	20 17	19 25	18 32	17 39		50			
8	00	25 50	24 58	24 06	23 15	22 22	21 31	20 40	19 48	18 57	18 05	17 13	8	00			
	10	25 10	24 19	23 29	22 38	21 47	20 57	20 07	19 17	18 27	17 36	16 46		10			
	20	24 28	23 39	22 49	22 00	21 10	20 21	19 33	18 43	17 55	17 06	16 17		20			
	30	23 43	22 55	22 07	21 19	20 31	19 43	18 56	18 08	17 21	16 34	15 47		30			
	40	22 56	22 09	21 22	20 36	19 49	19 02	18 17	17 31	16 45	15 59	15 14		40			
	50	22 06	21 20	20 34	19 50	19 05	18 21	17 37	16 52	16 07	15 23	14 39		50			
9	00	21 13	20 29	19 46	18 03	18 19	17 36	16 54	16 10	15 29	14 46	14 04	9	00			
	10	20 18	19 36	18 54	18 13	17 31	16 49	16 09	15 28	14 47	14 06	13 26		10			
	20	19 21	18 41	18 00	17 21	16 40	16 01	15 22	14 44	14 05	13 25	12 47		20			
	30	18 22	17 43	17 05	16 27	15 49	15 11	14 35	13 57	13 21	12 43	12 07		30			
	40	17 20	16 43	16 07	15 31	14 55	14 19	13 45	13 09	12 34	11 59	11 25		40			
	50	16 16	15 41	15 06	14 33	13 59	13 26	12 52	12 20	11 46	11 14	10 42		50			
10	00	15 10	14 37	14 05	13 34	13 02	12 31	12 00	11 29	10 58	10 27	9 57	10	00			
	10	14 01	13 31	13 02	12 32	12 03	11 34	11 05	10 36	10 08	9 39	9 11		10			
	20	12 52	12 24	11 56	11 30	11 03	10 35	10 09	9 43	9 17	8 51	8 25		20			
	30	11 39	11 14	10 50	10 25	10 00	9 36	9 12	8 48	8 25	8 00	7 38		30			
	40	10 26	10 04	9 41	9 19	8 57	8 35	8 14	7 52	7 31	7 10	6 49		40			
	50	9 11	8 52	8 32	8 12	7 53	7 33	7 15	6 55	6 37	6 18	6 00		50			
11	00	7 55	7 37	7 20	7 04	6 47	6 30	6 14	5 58	5 42	5 26	5 10	11	00			
	10	6 38	6 23	6 09	5 55	5 40	5 27	5 13	5 00	4 45	4 32	4 19		10			
	20	5 19	5 07	4 56	4 44	4 33	4 22	4 11	4 00	3 50	3 39	3 28		20			
	30	4 00	3 51	3 43	3 34	3 26	3 17	3 08	3 00	2 52	2 44	2 36		30			
	40	2 41	2 35	2 29	2 23	2 18	2 12	2 06	2 01	1 56	1 49	1 44		40			
	50	1 20	1 18	1 15	1 12	1 09	1 06	1 03	1 01	0 58	0 55	0 53		50			
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00			

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 10°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 10°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
		00	00	00	00	00	00	00	00	00	00	00	00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	0 21	8 41	8 06	7 34	7 07	6 41	6 18	5 57	5 39	5 21	5 04	4 50	0	10
0	20	15 11	16 56	15 50	14 51	13 58	12 09	12 26	11 46	11 09	10 35	10 04	9 34	0	20
0	30	26 07	24 27	22 57	21 36	20 23	19 15	18 14	17 17	16 25	15 35	14 51	14 10	0	30
0	40	32 59	31 04	29 18	27 43	26 14	24 51	23 36	22 26	21 21	20 21	19 24	18 31	0	40
0	50	38 49	36 40	34 51	33 05	31 26	29 54	28 28	27 09	25 54	24 43	23 38	22 36	0	50
1	00	43 43	41 36	39 37	37 46	36 01	34 23	32 51	31 24	30 02	28 45	27 32	26 23	1	00
1	10	47 47	45 41	43 42	41 49	40 02	38 20	36 43	35 13	33 46	32 23	31 06	29 51	1	10
1	20	51 10	49 07	47 09	45 18	43 29	41 47	40 09	38 35	37 06	35 41	34 19	33 01	1	20
1	30	54 00	52 01	50 06	48 16	46 30	44 47	43 09	41 35	40 05	38 37	37 14	35 53	1	30
1	40	56 22	54 28	52 37	50 50	49 05	47 25	45 47	44 13	42 42	41 14	39 50	38 27	1	40
1	50	58 22	56 32	54 45	53 01	51 19	49 41	48 05	46 32	45 02	43 33	42 09	40 46	1	50
2	00	60 03	58 18	56 35	54 54	53 16	51 39	50 05	48 34	47 05	45 38	44 13	42 50	2	00
2	10	61 29	59 48	58 08	56 31	54 56	53 22	51 50	50 21	48 54	47 28	46 04	44 42	2	10
2	20	62 41	61 04	59 29	57 55	56 23	54 52	53 22	51 55	50 29	49 05	47 42	46 20	2	20
2	30	63 42	62 09	60 38	59 07	57 38	56 10	54 43	53 17	51 53	50 30	49 09	47 48	2	30
2	40	64 35	63 06	61 37	60 09	58 44	57 18	55 53	54 30	53 07	51 46	50 26	49 07	2	40
2	50	65 19	63 54	62 28	61 02	59 39	58 16	56 54	55 32	54 12	52 53	51 34	50 16	2	50
3	00	65 57	64 33	63 10	61 49	60 28	59 06	57 46	56 27	55 08	53 51	52 33	51 17	3	00
3	10	66 28	65 07	63 47	62 28	61 09	59 50	58 32	57 15	55 57	54 41	53 26	52 11	3	10
3	20	66 54	65 36	64 18	63 00	61 44	60 27	59 11	57 55	56 40	55 25	54 11	52 59	3	20
3	30	67 15	65 59	64 43	63 29	62 13	60 58	59 44	58 30	57 17	56 04	54 51	53 40	3	30
3	40	67 32	66 18	65 04	63 51	62 38	61 25	60 12	59 01	57 48	56 37	55 25	54 14	3	40
3	50	67 44	66 33	65 21	64 09	62 58	61 47	60 36	59 26	58 14	57 04	55 54	54 45	3	50
4	00	67 54	66 44	65 33	64 23	63 15	62 05	60 55	59 46	58 36	57 27	56 18	55 10	4	00
4	10	68 00	66 51	65 43	64 35	63 26	62 18	61 10	60 02	58 53	57 46	56 38	55 31	4	10
4	20	68 03	66 57	65 49	64 42	63 35	62 28	61 20	60 14	59 07	58 01	56 54	55 48	4	20
4	30	68 04	66 58	65 52	64 46	63 41	62 34	61 28	60 23	59 17	58 11	57 06	56 01	4	30
4	40	68 02	66 57	65 52	64 47	63 42	62 37	61 33	60 28	59 24	58 19	57 13	56 09	4	40
4	50	67 57	66 53	65 50	64 46	63 42	62 38	61 34	60 30	59 26	58 22	57 19	56 15	4	50
5	00	67 50	66 47	65 44	64 41	63 38	62 36	61 33	60 29	59 26	58 23	57 20	56 17	5	00
5	10	67 41	66 38	65 36	64 35	63 32	62 29	61 28	60 25	59 23	58 20	57 18	56 16	5	10
5	20	67 29	66 28	65 26	64 25	63 24	62 22	61 20	60 19	59 17	58 15	57 13	56 12	5	20
5	30	67 15	66 14	65 14	64 12	63 12	62 11	61 10	60 09	59 08	58 06	57 05	56 05	5	30
5	40	66 59	65 58	64 59	63 58	62 58	61 57	60 57	59 57	58 56	57 55	56 55	55 55	5	40
5	50	66 40	65 41	64 40	63 41	62 41	61 41	60 41	59 42	58 41	57 41	56 41	55 41	5	50
6	00	66 19	65 20	64 20	63 21	62 21	61 22	60 23	59 23	58 24	57 24	56 25	55 25	6	00
6	10	65 57	64 57	63 58	62 59	62 00	61 01	60 01	59 03	58 03	57 03	56 05	55 06	6	10
6	20	65 31	64 32	63 34	62 34	61 36	60 37	59 38	58 39	57 40	56 41	55 42	54 44	6	20
6	30	65 03	64 05	63 06	62 07	61 09	60 10	59 12	58 13	57 14	56 15	55 17	54 18	6	30
6	40	64 34	63 35	62 36	61 37	60 39	59 40	58 42	57 44	56 45	55 47	54 49	53 51	6	40
6	50	64 01	63 02	62 03	61 04	60 06	59 08	58 10	57 12	56 13	55 15	54 17	53 19	6	50
7	00	63 25	62 26	61 28	60 30	59 31	58 33	57 35	56 37	55 38	54 41	53 43	52 46	7	00
7	10	62 47	61 48	60 50	59 51	58 52	57 54	56 56	55 58	55 01	54 02	53 05	52 07	7	10
7	20	62 05	61 06	60 08	59 10	58 11	57 13	56 15	55 18	54 19	53 21	52 24	51 27	7	20
7	30	61 21	60 19	59 23	58 24	57 27	56 28	55 30	54 32	53 34	52 36	51 40	50 42	7	30
7	40	60 32	59 34	58 34	57 36	56 38	55 39	54 41	53 44	52 46	51 49	50 51	49 55	7	40
7	50	59 42	58 42	57 42	56 43	55 46	54 47	53 49	52 52	51 54	50 56	50 00	49 04	7	50
8	00	58 45	57 46	56 46	55 48	54 50	53 51	52 53	51 56	50 57	50 01	49 03	48 08	8	00
8	10	57 47	56 46	55 47	54 48	53 49	52 51	51 53	50 55	49 58	49 01	48 04	47 09	8	10
8	20	56 42	55 42	54 43	53 43	52 45	51 46	50 48	49 51	48 53	47 56	47 01	46 05	8	20
8	30	55 33	54 33	53 33	52 33	51 35	50 36	49 39	48 41	47 44	46 47	45 51	44 57	8	30
8	40	54 20	53 19	52 19	51 19	50 20	49 22	48 23	47 27	46 30	45 34	44 38	43 44	8	40
8	50	52 59	51 59	50 59	49 59	49 00	48 02	47 04	46 07	45 11	44 15	43 20	42 26	8	50
9	00	51 34	50 33	49 32	48 32	47 34	46 36	45 39	44 43	43 46	42 51	41 56	41 03	9	00
9	10	50 02	49 00	48 00	47 00	46 02	45 04	44 07	43 11	42 15	41 21	40 26	39 35	9	10
9	20	48 22	47 21	46 21	45 21	44 23	43 26	42 30	41 35	40 40	39 45	38 53	38 01	9	20
9	30	46 34	45 34	44 34	43 35	42 38	41 41	40 46	39 51	38 57	38 04	37 12	36 21	9	30
9	40	44 39	43 39	42 39	41 41	40 45	39 48	38 54	38 00	37 08	36 16	35 25	34 36	9	40
9	50	42 34	41 35	40 36	39 39	38 43	37 49	36 55	36 03	35 11	34 22	33 32	32 44	9	50
10	00	40 21	39 22	38 24	37 29	36 35	35 41	34 49	33 59	33 09	32 20	31 33	30 46	10	00
10	10	37 56	36 59	36 03	35 09	34 16	33 25	32 35	31 46	30 58	30 12	29 26	28 42	10	10
10	20	35 21	34 26	33 31	32 40	31 50	31 01	30 12	29 26	28 40	27 57	27 13	26 32	10	20
10	30	32 35	31 42	30 51	30 01	29 14	28 27	27 42	26 58	26 15	25 34	24 54	24 15	10	30
10	40	29 37	28 48	27 59	27 12	26 29	25 45	25 03	24 22	23 43	23 04	22 27	21 51	10	40
10	50	26 29	25 43	24 57	24 15	23 35	22 54	22 16	21 39	21 04	20 29	19 55	19 23	10	50
11	00	23 07	22 26	21 46	21 07	20 31	19 56	19 22	18 49	18 18	17 48	17 17	16 48	11	00
11	10	19 36	19 00	18 26	17 52	17 21	16 50	16 20	15 53	15 25	14 58	14 33	14 09	11	10
11	20	15 55	15 25	14 56	14 28	14 02	13 37	13 13	12 49	12 27	12 06	11 45	11 25	11	20
11	30	12 04	11 41	11 19	10 58	10 38	10 19	9 59	9 42	9 23	9 08	8 52	8 37	11	30
11	40	8 07	7 57	7 36	7 22	7 08	6 55	6 42	6 29	6 18	6 08	5 56	5 46	11	40
11	50	4 04	3 57	3 49	3 41	3 35	3 28	3 22	3 15	3 10	3 04	2 59	2 53	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 10°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 10°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	o /												h.	m.
		0	1	2	3	4	5	6	7	8	9	10	11		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	4 36	4 23	4 12	4 00	3 49	3 39	3 30	3 21	3 12	3 05	2 57	2 50	10	10
	20	9 08	8 42	8 19	7 56	7 36	7 16	6 58	6 40	6 24	6 07	5 53	5 38	20	20
	30	13 31	12 54	12 20	11 48	11 17	10 48	10 21	9 55	9 31	9 07	8 45	8 24	30	30
	40	17 41	16 55	16 11	15 29	14 50	14 14	13 39	13 08	12 33	12 02	11 34	11 06	40	40
	50	21 37	20 43	19 50	19 01	18 14	17 30	16 47	16 08	15 29	14 52	14 16	13 43	50	50
1	00	25 17	24 16	23 16	22 20	21 27	20 36	19 48	19 02	18 17	17 34	16 54	16 15	1	00
	10	28 40	27 32	26 28	25 26	24 28	23 32	22 38	21 46	20 57	20 09	19 23	18 39	10	10
	20	31 45	30 34	29 25	28 20	27 16	26 16	25 18	24 22	23 28	22 36	21 46	20 58	20	20
	30	34 34	33 20	32 09	31 00	29 54	28 49	27 47	26 48	25 50	24 54	24 01	23 08	30	30
	40	37 08	35 51	34 37	33 26	32 18	31 11	30 06	29 03	28 03	27 03	26 06	25 11	40	40
	50	39 26	38 08	36 53	35 40	34 28	33 20	32 13	31 08	30 06	29 04	28 04	27 06	50	50
2	00	41 30	40 12	38 55	37 41	36 30	35 19	34 11	33 04	31 59	30 55	29 54	28 54	2	00
	10	43 21	42 03	40 46	39 32	38 19	37 08	35 59	34 51	33 44	32 39	31 36	30 34	10	10
	20	45 01	43 43	42 26	41 12	39 59	38 47	37 37	36 28	35 20	34 14	33 10	32 07	20	20
	30	46 30	45 12	43 56	42 42	41 29	40 17	39 07	37 57	36 49	35 42	34 36	33 32	30	30
	40	47 49	46 33	45 17	44 03	42 50	41 38	40 27	39 18	38 10	37 02	35 56	34 51	40	40
	50	48 59	47 43	46 29	45 16	44 03	42 52	41 42	40 32	39 24	38 15	37 08	36 03	50	50
3	00	50 01	48 46	47 33	46 20	45 09	43 57	42 47	41 38	40 30	39 22	38 15	37 09	3	00
	10	50 57	49 43	48 30	47 19	46 07	44 57	43 47	42 38	41 29	40 21	39 15	38 09	10	10
	20	51 44	50 32	49 20	48 09	46 59	45 49	44 40	43 31	42 23	41 16	40 09	39 03	20	20
	30	52 27	51 16	50 05	48 54	47 45	46 35	45 27	44 18	43 11	42 04	40 57	39 51	30	30
	40	53 03	51 53	50 43	49 34	48 25	47 17	46 09	45 01	43 54	42 47	41 40	40 34	40	40
	50	53 34	52 25	51 17	50 08	49 00	47 53	46 45	45 38	44 31	43 24	42 19	41 13	50	50
4	00	54 01	52 53	51 45	50 38	49 31	48 23	47 16	46 10	45 04	43 58	42 52	41 46	4	00
	10	54 23	53 16	52 09	51 02	49 56	48 50	47 44	46 38	45 32	44 27	43 21	42 16	10	10
	20	54 41	53 35	52 29	51 22	50 17	49 11	48 06	47 00	45 55	44 50	43 46	42 41	20	20
	30	54 55	53 50	52 44	51 39	50 34	49 29	48 24	47 20	46 15	45 10	44 06	43 02	30	30
	40	55 04	54 00	52 56	51 51	50 47	49 43	48 39	47 34	46 30	45 26	44 22	43 19	40	40
	50	55 11	54 07	53 03	52 00	50 56	49 53	48 49	47 46	46 42	45 38	44 35	43 32	50	50
5	00	55 14	54 11	53 07	52 04	51 01	49 59	48 56	47 53	46 50	45 47	44 44	43 41	5	00
	10	55 13	54 11	53 08	52 07	51 04	50 01	48 59	47 57	46 55	45 52	44 49	43 48	10	10
	20	55 10	54 08	53 06	52 05	51 02	50 01	49 00	47 57	46 56	45 53	44 51	43 50	20	20
	30	55 03	54 02	53 01	52 00	50 58	49 57	48 56	47 55	46 53	45 52	44 51	43 48	30	30
	40	54 53	53 52	52 52	51 51	50 51	49 50	48 49	47 48	46 47	45 46	44 46	43 45	40	40
	50	54 41	53 40	52 40	51 40	50 40	49 40	48 39	47 39	46 39	45 38	44 38	43 37	50	50
6	00	54 25	53 25	52 26	51 26	50 26	49 26	48 26	47 27	46 27	45 26	44 27	43 25	6	00
	10	54 06	53 06	52 07	51 09	50 09	49 10	48 10	47 10	46 11	45 11	44 12	43 12	10	10
	20	53 45	52 46	51 46	50 48	49 49	48 50	47 51	46 52	45 53	44 53	43 55	42 55	20	20
	30	53 20	52 21	51 22	50 24	49 25	48 27	47 29	46 30	45 32	44 32	43 34	42 36	30	30
	40	52 52	51 54	50 55	49 57	48 59	48 01	47 03	46 04	45 06	44 08	43 10	42 12	40	40
	50	52 21	51 23	50 25	49 28	48 29	47 32	46 34	45 37	44 39	43 41	42 42	41 45	50	50
7	00	51 47	50 50	49 52	48 55	47 57	46 59	46 03	45 05	44 08	43 10	42 13	41 16	7	00
	10	51 09	50 13	49 15	48 18	47 21	46 24	45 27	44 29	43 33	42 36	41 39	40 42	10	10
	20	50 29	49 32	48 36	47 38	46 42	45 45	44 48	43 51	42 56	41 59	41 03	40 07	20	20
	30	49 45	48 49	47 52	46 55	45 59	45 03	44 06	43 11	42 15	41 18	40 23	39 27	30	30
	40	48 58	48 01	47 04	46 08	45 12	44 18	43 21	42 25	41 31	40 35	39 40	38 45	40	40
	50	48 06	47 10	46 14	45 18	44 23	43 29	42 33	41 37	40 42	39 47	38 53	37 58	50	50
8	00	47 11	46 15	45 19	44 23	43 29	42 34	41 40	40 45	39 51	38 57	38 03	37 09	8	00
	10	46 12	45 16	44 21	43 26	42 32	41 37	40 43	39 49	38 56	38 02	37 09	36 17	10	10
	20	45 08	44 13	43 19	42 24	41 30	40 36	39 43	38 49	37 57	37 04	36 09	35 16	20	20
	30	44 01	43 06	42 12	41 17	40 24	39 32	38 38	37 46	36 55	36 03	35 10	34 20	30	30
	40	42 48	41 54	41 00	40 07	39 15	38 22	37 30	36 39	35 47	34 56	34 06	33 17	40	40
	50	41 31	40 38	39 44	38 52	38 00	37 09	36 18	35 27	34 37	33 47	32 58	32 08	50	50
9	00	40 08	39 16	38 23	37 32	36 41	35 51	35 01	34 11	33 22	32 32	31 45	30 58	9	00
	10	38 41	37 50	36 58	36 08	35 18	34 28	33 39	32 51	32 03	31 15	30 29	29 42	10	10
	20	37 09	36 18	35 28	34 38	33 50	33 01	32 14	31 27	30 40	29 54	29 08	28 24	20	20
	30	35 30	34 41	33 52	33 04	32 16	31 30	30 43	29 58	29 13	28 28	27 44	27 01	30	30
	40	33 46	32 58	32 11	31 24	30 38	29 53	29 08	28 24	27 42	26 58	26 16	25 34	40	40
	50	31 57	31 09	30 24	29 39	28 54	28 11	27 29	26 47	26 05	25 24	24 44	24 05	50	50
10	00	30 00	29 16	28 31	27 49	27 06	26 25	25 44	25 04	24 26	23 47	23 08	22 31	10	00
	10	27 58	27 15	26 34	25 53	25 13	24 33	23 56	23 18	22 41	22 04	21 28	20 53	10	10
	20	25 50	25 10	24 31	23 53	23 15	22 39	22 03	21 27	20 52	20 18	19 45	19 12	20	20
	30	23 36	22 59	22 22	21 47	21 12	20 38	20 05	19 32	19 00	18 29	17 58	17 27	30	30
	40	21 16	20 42	20 09	19 35	19 04	18 33	18 02	17 33	17 04	16 36	16 07	15 40	40	40
	50	18 51	18 19	17 50	17 21	16 52	16 25	15 57	15 30	15 05	14 39	14 14	13 50	50	50
11	00	16 19	15 53	15 26	15 01	14 36	14 11	13 47	13 24	13 02	12 40	12 18	11 57	11	00
	10	13 44	13 21	12 59	12 37	12 16	11 55	11 35	11 16	10 57	10 38	10 19	10 01	10	10
	20	11 04	10 45	10 27	10 10	9 53	9 36	9 20	9 04	8 48	8 33	8 18	8 03	20	20
	30	8 22	8 07	7 53	7 40	7 26	7 14	7 02	6 50	6 38	6 26	6 15	6 04	30	30
	40	5 36	5 27	5 17	5 08	4 59	4 51	4 42	4 34	4 26	4 18	4 10	4 04	40	40
	50	2 49	2 44	2 39	2 34	2 30	2 26	2 21	2 17	2 13	2 10	2 06	2 02	50	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle, and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 10°.				DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 10°.			
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.					
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.				
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00				
	10	2 43	2 36	2 30	2 23	2 18	2 12	2 07	2 01	1 57	1 52	1 47	1 42		10				
	20	5 24	5 12	4 59	4 47	4 35	4 24	4 13	4 03	3 52	3 43	3 33	3 25		20				
	30	8 04	7 44	7 25	7 08	6 51	6 34	6 17	6 02	5 47	5 32	5 19	5 05		30				
	40	10 40	10 14	9 49	9 26	9 03	8 41	8 20	8 00	7 40	7 21	7 03	6 45		40				
	50	13 11	12 40	12 10	11 41	11 14	10 47	10 20	9 55	9 32	9 08	8 45	8 23		50				
1	00	15 37	15 01	14 26	13 52	13 20	12 48	12 18	11 48	11 20	10 51	10 25	9 59	1	00				
	10	17 57	17 16	16 36	15 58	15 22	14 46	14 11	13 37	13 05	12 33	12 02	11 33		10				
	20	20 11	19 25	18 41	18 00	17 19	16 39	16 00	15 23	14 47	14 11	13 36	13 03		20				
	30	22 18	21 29	20 41	19 56	19 11	18 28	17 45	17 04	16 24	15 45	15 07	14 30		30				
	40	24 18	23 26	22 35	21 46	20 58	20 11	19 26	18 41	17 59	17 16	16 35	15 56		40				
	50	26 10	25 15	24 21	23 30	22 39	21 50	21 01	20 14	19 28	18 43	17 59	17 16		50				
2	00	27 56	26 58	26 02	25 08	24 16	23 23	22 32	21 43	20 53	20 06	19 20	18 34	2	00				
	10	29 34	28 35	27 37	26 40	25 45	24 50	23 58	23 06	22 15	21 25	20 36	19 48		10				
	20	31 05	30 04	29 05	28 06	27 09	26 13	25 18	24 25	23 31	22 39	21 49	20 58		20				
	30	32 30	31 28	30 26	29 27	28 29	27 30	26 33	25 38	24 44	23 49	22 57	22 04		30				
	40	33 48	32 44	31 42	30 42	29 42	28 42	27 44	26 47	25 51	24 56	24 00	23 07		40				
	50	34 58	33 55	32 52	31 50	30 50	29 49	28 49	27 51	26 54	25 57	25 01	24 06		50				
3	00	36 04	34 59	33 55	32 53	31 52	30 50	29 50	28 50	27 52	26 54	25 56	25 01	3	00				
	10	37 03	35 58	34 54	33 51	32 49	31 47	30 46	29 46	28 46	27 47	26 48	25 51		10				
	20	37 57	36 53	35 48	34 45	33 43	32 40	31 38	30 37	29 36	28 36	27 37	26 38		20				
	30	38 46	37 41	36 37	35 33	34 30	33 27	32 25	31 23	30 22	29 21	28 21	27 21		30				
	40	39 29	38 24	37 20	36 16	35 13	34 09	33 07	32 04	31 03	30 02	29 01	28 01		40				
	50	40 08	39 03	37 59	36 55	35 52	34 48	33 45	32 42	31 41	30 39	29 38	28 38		50				
4	00	40 42	39 37	38 32	37 29	36 25	35 22	34 19	33 16	32 14	31 12	30 11	29 09	4	00				
	10	41 12	40 07	39 02	37 59	36 50	35 52	34 49	33 47	32 44	31 42	30 40	29 38		10				
	20	41 37	40 33	39 28	38 25	37 22	36 19	35 16	34 12	33 10	32 07	31 06	30 04		20				
	30	41 58	40 54	39 51	38 47	37 44	36 41	35 38	34 35	33 33	32 31	31 28	30 26		30				
	40	42 15	41 12	40 08	39 05	38 03	36 59	35 57	34 54	33 51	32 49	31 47	30 45		40				
	50	42 29	41 26	40 22	39 20	38 18	37 14	36 12	35 10	34 07	33 04	32 03	31 00		50				
5	00	42 38	41 36	40 33	39 30	38 29	37 26	36 23	35 21	34 19	33 17	32 14	31 13	5	00				
	10	42 45	41 42	40 41	39 38	38 36	37 34	36 32	35 30	34 28	33 26	32 24	31 22		10				
	20	42 48	41 46	40 43	39 42	38 41	37 38	36 37	35 35	34 33	33 31	32 30	31 29		20				
	30	42 47	41 46	40 44	39 43	38 42	37 40	36 39	35 38	34 36	33 35	32 33	31 31		30				
	40	42 44	41 42	40 41	39 41	38 40	37 38	36 38	35 36	34 35	33 34	32 32	31 32		40				
	50	42 37	41 36	40 36	39 35	38 34	37 34	36 32	35 32	34 32	33 30	32 30	31 29		50				
6	00	42 26	41 26	40 26	39 26	38 26	37 25	36 25	35 25	34 24	33 25	32 24	31 23	6	00				
	10	42 13	41 13	40 13	39 13	38 14	37 14	36 15	35 14	34 15	33 14	32 15	31 15		10				
	20	41 57	40 57	39 58	38 58	37 59	36 59	35 59	34 59	33 59	32 59	31 59	30 59		20				
	30	41 39	40 38	39 39	38 40	37 42	36 43	35 44	34 45	33 46	32 47	31 48	30 49		30				
	40	41 13	40 16	39 17	38 19	37 21	36 23	35 25	34 26	33 28	32 29	31 31	30 33		40				
	50	40 48	39 50	38 53	37 55	36 57	35 59	35 02	34 03	33 06	32 08	31 11	30 13		50				
7	00	40 19	39 21	38 24	37 27	36 31	35 33	34 36	33 39	32 42	31 44	30 47	29 50	7	00				
	10	39 46	38 50	37 53	36 56	36 01	35 03	34 07	33 11	32 14	31 18	30 21	29 25		10				
	20	39 11	38 14	37 18	36 23	35 27	34 31	33 36	32 40	31 44	30 48	29 53	28 58		20				
	30	38 32	37 37	36 41	35 49	34 52	33 56	33 01	32 06	31 10	30 16	29 21	28 27		30				
	40	37 49	36 55	36 01	35 06	34 12	33 17	32 23	31 30	30 35	29 41	28 47	27 54		40				
	50	37 04	36 11	35 16	34 23	33 30	32 36	31 43	30 49	29 57	29 03	28 10	27 17		50				
8	00	36 15	35 22	34 29	33 37	32 44	31 51	30 59	30 06	29 15	28 22	27 30	26 39	8	00				
	10	35 22	34 31	33 39	32 45	31 56	31 04	30 13	29 21	28 30	27 39	26 48	25 58		10				
	20	34 28	33 38	32 45	31 54	31 04	30 13	29 23	28 33	27 43	26 53	26 03	25 14		20				
	30	33 29	32 38	31 49	30 58	30 09	29 19	28 31	27 41	26 50	26 04	25 15	24 27		30				
	40	32 26	31 37	30 48	29 59	29 11	28 22	27 35	26 47	26 00	25 12	24 25	23 38		40				
	50	31 20	30 32	29 43	28 57	28 10	27 22	26 36	25 49	25 03	24 17	23 31	22 47		50				
9	00	30 10	29 23	28 37	27 51	27 05	26 19	25 34	24 48	24 05	23 20	22 36	21 52	9	00				
	10	28 57	28 11	27 25	26 41	25 57	25 13	24 29	23 46	23 03	22 20	21 37	20 56		10				
	20	27 39	26 55	26 12	25 28	24 46	24 04	23 22	22 40	21 58	21 18	20 37	19 56		20				
	30	26 18	25 36	24 54	24 13	23 32	22 52	22 11	21 31	20 52	20 12	19 33	18 54		30				
	40	24 53	24 13	23 33	22 54	22 15	21 36	20 57	20 20	19 42	19 05	18 27	17 51		40				
	50	23 25	22 46	22 09	21 32	20 54	20 18	19 41	19 05	18 30	17 54	17 20	16 45		50				
10	00	21 54	21 18	20 42	20 06	19 31	18 57	18 22	17 48	17 15	16 42	16 09	15 37	10	00				
	10	20 19	19 44	19 11	18 37	18 05	17 32	17 01	16 29	15 58	15 27	14 56	14 27		10				
	20	18 40	18 08	17 37	17 06	16 36	16 06	15 36	15 07	14 38	14 10	13 41	13 14		20				
	30	16 58	16 29	16 00	15 33	15 05	14 37	14 11	13 44	13 17	12 51	12 26	12 00		30				
	40	15 14	14 47	14 21	13 55	13 31	13 06	12 42	12 18	12 54	11 31	11 07	10 45		40				
	50	13 26	13 02	12 39	12 16	11 55	11 33	11 12	10 49	10 29	10 09	9 48	9 27		50				
11	00	11 36	11 16	10 55	10 35	10 16	9 58	9 38	9 20	9 02	8 44	8 26	8 10	11	00				
	10	9 43	9 26	9 09	8 53	8 37	8 20	8 05	7 49	7 34	7 19	7 04	6 50		10				
	20	7 49	7 36	7 21	7 08	6 55	6 42	6 29	6 17	6 05	5 52	5 40	5 29		20				
	30	5 53	5 43	5 32	5 22	5 13	5 02	4 53	4 44	4 34	4 25	4 17	4 08		30				
	40	3 56	3 49	3 43	3 35	3 29	3 22	3 16	3 10	3 04	2 57	2 51	2 45		40				
	50	1 58	1 55	1 51	1 48	1 45	1 42	1 38	1 35	1 32	1 29	1 25	1 22	</					

AZIMUTH OR TRUE BEARING.

LATITUDE 10°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 10°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	1 38	1 34	1 29	1 25	1 21	1 18	1 14	1 10	1 06	1 03	0 59		10	
	20	3 15	3 06	2 58	2 50	2 43	2 34	2 26	2 20	2 12	2 05	1 59		20	
	30	4 51	4 39	4 27	4 14	4 03	3 51	3 40	3 29	3 18	3 07	2 57		30	
	40	6 28	6 11	5 54	5 38	5 22	5 07	4 52	4 37	4 23	4 08	3 55		40	
	50	8 01	7 40	7 20	7 00	6 40	6 21	6 03	5 45	5 27	5 09	4 53		50	
1	00	9 33	9 09	8 44	8 21	7 57	7 35	7 13	6 51	6 30	6 09	5 49	1	00	
	10	11 03	10 35	10 07	9 40	9 13	8 47	8 21	7 57	7 33	7 09	6 45		10	
	20	12 30	11 58	11 27	10 56	10 26	9 57	9 28	9 01	8 33	8 06	7 40		20	
	30	13 54	13 19	12 45	12 11	11 38	11 06	10 34	10 03	9 32	9 03	8 33		30	
	40	15 17	14 38	14 00	13 24	12 47	12 12	11 38	11 04	10 30	9 58	9 25		40	
	50	16 35	15 53	15 13	14 33	13 54	13 16	12 39	12 02	11 26	10 51	10 15		50	
2	00	17 50	17 05	16 28	15 40	14 58	14 18	13 38	12 58	12 20	11 42	11 04	2	00	
	10	19 01	18 15	17 30	16 44	16 01	15 17	14 35	13 53	13 12	12 31	11 51		10	
	20	20 09	19 20	18 33	17 46	17 00	16 14	15 29	14 45	14 01	13 19	12 37		20	
	30	21 14	20 23	19 33	18 44	17 56	17 08	16 21	15 35	14 49	14 05	13 20		30	
	40	22 14	21 22	20 31	19 40	18 49	18 00	17 11	16 23	15 35	14 48	14 02		40	
	50	23 12	22 17	21 24	20 32	19 40	18 49	17 58	17 07	16 18	15 29	14 41		50	
3	00	24 05	23 09	22 15	21 21	20 27	19 34	18 42	17 50	16 59	16 09	15 19	3	00	
	10	24 54	23 58	23 02	22 07	21 12	20 18	19 24	18 30	17 38	16 45	15 54		10	
	20	25 41	24 43	23 46	22 49	21 53	20 57	20 02	19 07	18 14	17 21	16 27		20	
	30	26 23	25 24	24 27	23 29	22 32	21 35	20 38	19 43	18 48	17 53	16 58		30	
	40	27 02	26 02	25 03	24 05	23 07	22 09	21 12	20 15	19 19	18 23	17 27		40	
	50	27 37	26 36	25 38	24 38	23 39	22 41	21 43	20 45	19 47	18 50	17 53		50	
4	00	28 09	27 08	26 08	25 08	24 09	23 09	22 10	21 12	20 13	19 15	18 17	4	00	
	10	28 37	27 36	26 36	25 35	24 35	23 35	22 36	21 36	20 37	19 39	18 40		10	
	20	29 03	28 01	27 00	25 59	24 58	23 58	22 58	21 58	20 58	19 59	18 59		20	
	30	29 25	28 23	27 22	26 20	25 20	24 19	23 18	22 18	21 17	20 17	19 17		30	
	40	29 43	28 41	27 40	26 39	25 37	24 36	23 35	22 34	21 34	20 33	19 32		40	
	50	29 59	28 57	27 55	26 53	25 52	24 51	23 50	22 49	21 47	20 47	19 46		50	
5	00	30 11	29 09	28 08	27 06	26 04	25 03	24 01	23 00	21 59	20 58	19 57	5	00	
	10	30 20	29 18	28 17	27 15	26 13	25 12	24 11	23 09	22 08	21 08	20 06		10	
	20	30 27	29 25	28 24	27 22	26 21	25 19	24 17	23 16	22 15	21 14	20 12		20	
	30	30 30	29 29	28 28	27 26	26 25	25 24	24 21	23 20	22 19	21 18	20 16		30	
	40	30 30	29 30	28 28	27 27	26 26	25 25	24 23	23 22	22 21	21 20	20 18		40	
	50	30 29	29 27	28 26	27 25	26 25	25 24	24 23	23 22	22 21	21 21	20 19		50	
6	00	30 23	29 23	28 22	27 21	26 21	25 20	24 20	23 19	22 18	21 18	20 17	6	00	
	10	30 15	29 15	28 15	27 15	26 15	25 15	24 14	23 13	22 13	21 13	20 12		10	
	20	30 04	29 05	28 06	27 05	26 06	25 06	24 06	23 06	22 06	21 07	20 07		20	
	30	29 50	28 51	27 53	26 54	25 54	24 55	23 56	22 57	21 57	20 58	19 58		30	
	40	29 35	28 35	27 37	26 39	25 40	24 41	23 43	22 44	21 45	20 47	19 47		40	
	50	29 16	28 17	27 20	26 21	25 23	24 26	23 28	22 29	21 31	20 33	19 35		50	
7	00	28 53	27 56	27 00	26 02	25 05	24 08	23 10	22 13	21 16	20 19	19 21	7	00	
	10	28 29	27 32	26 36	25 39	24 43	23 47	22 50	21 54	20 57	20 02	19 05		10	
	20	28 03	27 06	26 12	25 15	24 20	23 25	22 28	21 33	20 37	19 41	18 46		20	
	30	27 32	26 37	25 43	24 48	23 53	22 59	22 04	21 10	20 15	19 20	18 26		30	
	40	26 59	26 06	25 12	24 19	23 26	22 31	21 38	20 44	19 50	18 58	18 03		40	
	50	26 25	25 31	24 40	23 47	22 54	22 02	21 09	20 16	19 25	18 32	17 40		50	
8	00	25 47	24 55	24 04	23 13	22 21	21 30	20 38	19 47	18 56	18 05	17 13	8	00	
	10	25 07	24 16	23 27	22 36	21 46	20 55	20 06	19 16	18 25	17 36	16 46		10	
	20	24 24	23 35	22 47	21 57	21 08	20 20	19 31	18 42	17 53	17 05	16 17		20	
	30	23 40	22 51	22 03	21 17	20 28	19 41	18 54	18 07	17 19	16 33	15 45		30	
	40	22 51	22 05	21 19	20 32	19 46	19 01	18 14	17 30	16 44	15 59	15 12		40	
	50	22 02	21 16	20 31	19 47	19 02	18 18	17 34	16 50	16 06	15 22	14 39		50	
9	00	21 08	20 25	19 42	18 59	18 16	17 34	16 51	16 08	15 27	14 45	14 02	9	00	
	10	20 13	19 32	18 50	18 09	17 28	16 47	16 06	15 26	14 45	14 05	13 25		10	
	20	19 16	18 36	17 57	17 17	16 38	15 58	15 20	14 41	14 02	13 24	12 45		20	
	30	18 17	17 38	17 01	16 23	15 46	15 08	14 32	13 55	13 18	12 42	12 04		30	
	40	17 15	16 38	16 03	15 27	14 51	14 16	13 42	13 07	12 32	11 57	11 23		40	
	50	16 11	15 36	15 03	14 30	13 56	13 23	12 50	12 17	11 45	11 13	10 40		50	
10	00	15 05	14 33	14 01	13 30	12 58	12 28	11 57	11 26	10 46	10 26	9 56	10	00	
	10	13 56	13 27	12 58	12 29	12 00	11 31	11 02	10 34	10 06	9 39	9 11		10	
	20	12 47	12 20	11 53	11 26	10 59	10 33	10 06	9 41	9 14	8 50	8 24		20	
	30	11 35	11 11	10 46	10 22	9 58	9 34	9 09	8 46	8 23	8 00	7 36		30	
	40	10 22	9 59	9 38	9 16	8 55	8 33	8 11	7 51	7 29	7 09	6 48		40	
	50	9 08	8 48	8 29	8 09	7 51	7 31	7 13	6 54	6 35	6 17	5 59		50	
11	00	7 52	7 35	7 18	7 01	6 45	6 29	6 12	5 57	5 40	5 25	5 08	11	00	
	10	6 35	6 21	6 07	5 52	5 39	5 25	5 12	4 58	4 44	4 31	4 19		10	
	20	5 17	5 06	4 54	4 43	4 32	4 21	4 10	4 00	3 49	3 38	3 27		20	
	30	3 59	3 50	3 41	3 33	3 25	3 16	3 08	3 00	2 52	2 43	2 36		30	
	40	2 40	2 34	2 28	2 23	2 17	2 11	2 06	2 00	1 54	1 49	1 44		40	
	50	1 19	1 17	1 14	1 11	1 08	1 05	1 03	1 00	0 57	0 54	0 52		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 11°.				DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 11°.			
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.			
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	10 02	9 17	8 37	8 01	7 30	7 02	6 37	6 15	5 53	5 34	5 17	5 01		10		
	20	19 27	18 02	16 48	15 42	14 42	13 50	13 02	12 18	11 38	11 02	10 27	9 56		20		
	30	27 46	25 55	24 16	22 46	21 25	20 11	19 04	18 03	17 06	16 14	15 26	14 41		30		
	40	34 53	32 46	30 51	29 05	27 29	26 00	24 38	23 23	22 12	21 07	20 07	19 10		40		
	50	40 48	38 34	36 31	34 35	32 49	31 11	29 38	28 12	26 53	25 37	24 27	23 22		50		
1	00	45 40	43 25	41 19	39 19	37 28	35 43	34 05	32 32	31 06	29 44	28 26	27 13	1	00		
	10	49 42	47 28	45 23	43 23	41 30	39 43	38 00	36 25	34 53	33 26	32 04	30 45		10		
	20	53 00	50 50	48 48	46 50	44 57	43 09	41 26	39 48	38 14	36 44	35 19	33 56		20		
	30	55 43	53 40	51 40	49 46	47 55	46 09	44 26	42 47	41 13	39 41	38 13	36 49		30		
	40	58 00	56 01	54 06	52 15	50 27	48 43	47 02	45 23	43 50	42 18	40 49	39 24		40		
	50	59 53	58 00	56 10	54 22	52 38	50 55	49 17	47 41	46 07	44 36	43 08	41 42		50		
2	00	61 28	59 41	57 55	56 11	54 30	52 51	51 14	49 40	48 08	46 39	45 11	43 45	2	00		
	10	62 48	61 05	59 23	57 44	56 06	54 30	52 57	51 24	49 54	48 26	46 59	45 35		10		
	20	63 55	62 17	60 39	59 03	57 29	55 56	54 25	52 55	51 27	50 00	48 35	47 12		20		
	30	64 52	63 17	61 45	60 11	58 40	57 11	55 42	54 15	52 48	51 24	50 00	48 35		30		
	40	65 39	64 08	62 38	61 10	59 42	58 15	56 48	55 23	53 59	52 36	51 15	49 55		40		
	50	66 18	64 52	63 25	61 59	60 33	59 09	57 45	56 23	55 01	53 40	52 20	51 01		50		
3	00	66 51	65 28	64 04	62 41	61 19	59 57	58 35	57 15	55 55	54 36	53 18	52 00	3	00		
	10	67 19	65 58	64 37	63 16	61 56	60 37	59 18	57 59	56 42	55 24	54 07	52 52		10		
	20	67 41	66 22	65 04	63 46	62 28	61 11	59 54	58 37	57 21	56 05	54 51	53 36		20		
	30	67 59	66 42	65 26	64 11	62 55	61 39	60 24	59 10	57 56	56 41	55 28	54 14		30		
	40	68 12	66 58	65 44	64 30	63 16	62 03	60 50	59 36	58 24	57 12	56 00	54 48		40		
	50	68 21	67 09	65 57	64 46	63 34	62 22	61 11	59 59	58 48	57 36	56 26	55 15		50		
4	00	68 29	67 18	66 07	64 57	63 46	62 37	61 27	60 17	59 07	57 57	56 48	55 39	4	00		
	10	68 32	67 23	66 14	65 05	63 56	62 48	61 39	60 31	59 22	58 14	57 05	55 57		10		
	20	68 32	67 25	66 18	65 09	64 02	62 54	61 47	60 41	59 33	58 26	57 19	56 12		20		
	30	68 30	67 24	66 18	65 12	64 05	62 59	61 53	60 47	59 41	58 35	57 29	56 22		30		
	40	68 25	67 20	66 15	65 10	64 05	63 00	61 54	60 49	59 44	58 39	57 34	56 29		40		
	50	68 17	67 14	66 10	65 06	64 02	62 58	61 54	60 50	59 46	58 41	57 37	56 34		50		
5	00	68 08	67 05	66 02	65 00	63 56	62 53	61 50	60 47	59 43	58 40	57 36	56 33	5	00		
	10	67 56	66 54	65 52	64 49	63 47	62 45	61 43	60 40	59 38	58 35	57 33	56 30		10		
	20	67 42	66 41	65 39	64 38	63 36	62 35	61 33	60 31	59 30	58 28	57 26	56 24		20		
	30	67 25	66 25	65 24	64 23	63 23	62 21	61 20	60 20	59 19	58 18	57 16	56 15		30		
	40	67 07	66 07	65 07	64 07	63 06	62 06	61 06	60 06	59 05	58 04	57 04	56 03		40		
	50	66 47	65 46	64 47	63 47	62 48	61 48	60 48	59 48	58 48	57 48	56 48	55 47		50		
6	00	66 24	65 24	64 25	63 26	62 26	61 27	60 27	59 28	58 28	57 29	56 29	55 29	6	00		
	10	65 58	64 59	64 01	63 02	62 03	61 04	60 05	59 05	58 06	57 07	56 08	55 09		10		
	20	65 31	64 32	63 34	62 35	61 36	60 38	59 39	58 41	57 42	56 43	55 44	54 45		20		
	30	65 01	64 02	63 04	62 06	61 07	60 09	59 11	58 12	57 13	56 15	55 17	54 19		30		
	40	64 29	63 31	62 32	61 34	60 35	59 37	58 39	57 41	56 43	55 45	54 47	53 48		40		
	50	63 53	62 56	61 58	61 00	60 01	59 03	58 05	57 08	56 09	55 11	54 13	53 15		50		
7	00	63 17	62 18	61 20	60 22	59 23	58 26	57 28	56 31	55 33	54 35	53 38	52 40	7	00		
	10	62 36	61 38	60 39	59 41	58 43	57 46	56 47	55 50	54 53	53 55	52 58	52 01		10		
	20	61 53	60 54	59 56	58 58	58 00	57 02	56 05	55 08	54 10	53 12	52 15	51 19		20		
	30	61 06	60 07	59 09	58 11	57 13	56 15	55 18	54 21	53 24	52 26	51 30	50 33		30		
	40	60 15	59 17	58 19	57 22	56 23	55 25	54 28	53 31	52 33	51 36	50 40	49 44		40		
	50	59 23	58 24	57 26	56 28	55 29	54 31	53 34	52 37	51 40	50 43	49 46	48 51		50		
8	00	58 25	57 26	56 27	55 29	54 31	53 33	52 36	51 39	50 42	49 46	48 50	47 53	8	00		
	10	57 23	56 25	55 26	54 27	53 29	52 31	51 34	50 37	49 41	48 45	47 49	46 52		10		
	20	56 18	55 18	54 19	53 21	52 23	51 25	50 28	49 31	48 35	47 38	46 43	45 48		20		
	30	55 07	54 07	53 08	52 10	51 12	50 13	49 17	48 21	47 24	46 28	45 33	44 39		30		
	40	53 51	52 51	51 52	50 53	49 55	48 58	48 01	47 05	46 09	45 13	44 19	43 24		40		
	50	52 30	51 29	50 30	49 32	48 34	47 37	46 40	45 44	44 48	43 54	42 59	42 05		50		
9	00	51 02	50 02	49 02	48 05	47 06	46 09	45 14	44 18	43 23	42 28	41 35	40 41	9	00		
	10	49 28	48 28	47 29	46 31	45 34	44 37	43 41	42 46	41 52	40 58	40 05	39 13		10		
	20	47 48	46 48	45 49	44 51	43 54	42 57	42 03	41 09	40 14	39 22	38 29	37 38		20		
	30	45 59	45 00	44 01	43 03	42 07	41 12	40 18	39 24	38 32	37 39	36 49	35 58		30		
	40	44 01	43 00	42 05	41 09	40 13	39 19	38 25	37 34	36 42	35 50	35 01	34 13		40		
	50	41 56	40 59	40 02	39 07	38 12	37 18	36 27	35 36	34 45	33 56	33 08	32 21		50		
10	00	39 43	38 45	37 49	36 55	36 03	35 11	34 21	33 31	32 43	31 55	31 09	30 23	10	00		
	10	37 17	36 22	35 28	34 36	33 44	32 54	32 06	31 19	30 32	29 47	29 03	28 19		10		
	20	34 44	33 49	32 58	32 08	31 18	30 31	29 45	28 59	28 16	27 32	26 51	26 10		20		
	30	31 53	31 07	30 18	29 31	28 44	27 58	27 16	26 33	25 51	25 11	24 32	23 54		30		
	40	29 02	28 14	27 28	26 44	26 00	25 18	24 38	23 58	23 20	22 43	22 07	21 32		40		
	50	25 55	25 11	24 28	23 48	23 07	22 30	21 53	21 18	20 42	20 09	19 37	19 05		50		
11	00	22 37	21 57	21 20	20 43	20 07	19 34	19 01	18 29	17 58	17 29	17 00	16 32	11	00		
	10	19 09	18 35	18 02	17 31	17 00	16 30	16 03	15 35	15 08	14 44	14 19	13 55		10		
	20	15 32	15 03	14 36	14 10	13 45	13 21	12 58	12 35	12 14	11 53	11 33	11 13		20		
	30	11 46	11 24	11 03	10 44	10 24	10 06	9 47	9 31	9 14	8 59	8 43	8 28		30		
	40	7 55	7 40	7 25	7 12	6 58	6 46	6 34	6 23	6 12	6 01	5 51	5 40		40		
	50	3 58	3 51	3 44	3 37	3											

AZIMUTH OR TRUE BEARING.

LATITUDE 11°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 11°.		
Hour Angle.			36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.		
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.	o /
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	0 00
	10	4 46	4 34	4 20	4 07	3 57	3 46	3 36	3 27	3 18	3 09	3 01	2 54		10	10	4 46
	20	9 28	9 00	8 35	8 12	7 50	7 29	7 10	6 51	6 34	6 17	6 01	5 46		20	20	9 28
	30	13 59	13 20	12 44	12 10	11 38	11 07	10 39	10 12	9 46	9 21	8 58	8 35		30	30	13 59
	40	18 18	17 28	16 42	15 58	15 16	14 38	14 01	13 26	12 52	12 20	11 51	11 22		40	40	18 18
	50	22 20	21 22	20 27	19 34	18 45	17 59	17 15	16 32	15 52	15 13	14 37	14 01		50	50	22 20
1	00	26 04	24 59	23 57	22 58	22 02	21 09	20 18	19 30	18 43	17 59	17 17	16 36	1	00	00	26 04
	10	29 31	28 19	27 13	26 08	25 07	24 08	23 11	22 18	21 26	20 37	19 49	19 03		10	10	29 31
	20	32 39	31 23	30 12	29 04	27 57	26 54	25 54	24 55	23 59	23 05	22 13	21 23		20	20	32 39
	30	35 29	34 11	32 56	31 45	30 36	29 28	28 24	27 23	26 23	25 25	24 30	23 36		30	30	35 29
	40	38 03	36 43	35 26	34 12	33 00	31 51	30 44	29 39	28 36	27 35	26 37	25 39		40	40	38 03
	50	40 20	38 59	37 42	36 26	35 12	34 01	32 52	31 45	30 40	29 37	28 35	27 35		50	50	40 20
2	00	42 23	41 02	39 44	38 28	37 13	36 01	34 50	33 41	32 35	31 29	30 26	29 24	2	00	00	42 23
	10	44 13	42 52	41 34	40 17	39 02	37 49	36 37	35 28	34 20	33 12	32 08	31 04		10	10	44 13
	20	45 51	44 30	43 13	41 56	40 40	39 27	38 15	37 05	35 56	34 48	33 42	32 37		20	20	45 51
	30	47 18	45 58	44 41	43 24	42 10	40 57	39 44	38 33	37 24	36 15	35 08	34 02		30	30	47 18
	40	48 36	47 17	46 00	44 45	43 29	42 16	41 04	39 54	38 43	37 34	36 27	35 20		40	40	48 36
	50	49 44	48 26	47 10	45 55	44 41	43 28	42 17	41 06	39 56	38 47	37 38	36 31		50	50	49 44
3	00	50 44	49 27	48 12	46 58	45 45	44 33	43 22	42 11	41 01	39 52	38 44	37 37	3	00	00	50 44
	10	51 37	50 21	49 07	47 55	46 42	45 30	44 19	43 10	42 00	40 51	39 43	38 35		10	10	51 37
	20	52 22	51 09	49 56	48 44	47 32	46 21	45 11	44 02	42 53	41 43	40 36	39 29		20	20	52 22
	30	53 03	51 50	50 38	49 28	48 17	47 06	45 56	44 47	43 38	42 30	41 23	40 16		30	30	53 03
	40	53 37	52 25	51 15	50 05	48 55	47 45	46 37	45 28	44 19	43 12	42 05	40 58		40	40	53 37
	50	54 06	52 56	51 46	50 37	49 28	48 20	47 12	46 03	44 56	43 49	42 42	41 35		50	50	54 06
4	00	54 30	53 21	52 12	51 04	49 56	48 48	47 41	46 34	45 27	44 21	43 14	42 08	4	00	00	54 30
	10	54 50	53 42	52 34	51 27	50 20	49 13	48 06	47 00	45 53	44 48	43 42	42 36		10	10	54 50
	20	55 05	53 58	52 52	51 46	50 39	49 33	48 27	47 21	46 16	45 10	44 05	42 59		20	20	55 05
	30	55 17	54 11	53 06	51 59	50 54	49 49	48 44	47 39	46 34	45 29	44 24	43 19		30	30	55 17
	40	55 24	54 19	53 15	52 10	51 05	50 01	48 56	47 52	46 48	45 43	44 39	43 34		40	40	55 24
	50	55 29	54 25	53 21	52 17	51 13	50 09	49 05	48 02	46 58	45 54	44 50	43 46		50	50	55 29
5	00	55 30	54 27	53 24	52 20	51 17	50 14	49 10	48 08	47 04	46 01	44 57	43 55	5	00	00	55 30
	10	55 28	54 25	53 22	52 20	51 17	50 15	49 13	48 09	47 07	46 05	45 02	44 00		10	10	55 28
	20	55 22	54 21	53 19	52 17	51 14	50 13	49 11	48 09	47 07	46 05	45 02	44 00		20	20	55 22
	30	55 14	54 13	53 12	52 10	51 09	50 07	49 06	48 04	47 03	46 01	44 59	43 58		30	30	55 14
	40	55 02	54 02	53 01	52 01	51 00	49 58	48 57	47 57	46 56	45 55	44 54	43 52		40	40	55 02
	50	54 48	53 47	52 48	51 47	50 46	49 46	48 47	47 46	46 45	45 45	44 44	43 43		50	50	54 48
6	00	54 30	53 31	52 31	51 31	50 31	49 31	48 31	47 32	46 32	45 32	44 32	43 31	6	00	00	54 30
	10	54 10	53 10	52 11	51 12	50 13	49 13	48 14	47 14	46 15	45 16	44 16	43 17		10	10	54 10
	20	53 47	52 48	51 49	50 50	49 51	48 52	47 54	46 54	45 56	44 56	43 57	42 58		20	20	53 47
	30	53 20	52 22	51 23	50 24	49 27	48 28	47 30	46 31	45 33	44 34	43 36	42 37		30	30	53 20
	40	52 51	51 53	50 54	49 57	48 59	48 01	47 03	46 05	45 07	44 08	43 10	42 12		40	40	52 51
	50	52 18	51 20	50 23	49 25	48 28	47 30	46 32	45 35	44 37	43 40	42 43	41 45		50	50	52 18
7	00	51 43	50 45	49 48	48 50	47 53	46 56	46 00	45 02	44 05	43 09	42 11	41 14	7	00	00	51 43
	10	51 04	50 07	49 10	48 13	47 16	46 20	45 23	44 26	43 29	42 33	41 36	40 40		10	10	51 04
	20	50 22	49 25	48 28	47 32	46 35	45 39	44 42	43 47	42 51	41 55	40 59	40 02		20	20	50 22
	30	49 36	48 39	47 43	46 47	45 51	44 56	44 00	43 04	42 08	41 13	40 17	39 22		30	30	49 36
	40	48 47	47 51	46 55	46 00	45 04	44 08	43 13	42 18	41 23	40 28	39 33	38 39		40	40	48 47
	50	47 55	46 59	46 03	45 08	44 13	43 18	42 23	41 29	40 34	39 40	38 46	37 52		50	50	47 55
8	00	46 58	46 03	45 08	44 12	43 17	42 24	41 29	40 36	39 42	38 48	37 55	37 01	8	00	00	46 58
	10	45 57	45 02	44 07	43 14	42 19	41 25	40 32	39 39	38 45	37 53	37 00	36 08		10	10	45 57
	20	44 53	43 59	43 04	42 10	41 17	40 23	39 31	38 38	37 46	36 54	36 02	35 11		20	20	44 53
	30	43 44	42 49	41 56	41 03	40 10	39 18	38 25	37 34	36 43	35 52	35 00	34 10		30	30	43 44
	40	42 30	41 37	40 44	39 51	38 59	38 08	37 16	36 26	35 35	34 45	33 55	33 06		40	40	42 30
	50	41 11	40 20	39 28	38 36	37 44	36 54	36 04	35 14	34 24	33 35	32 46	31 58		50	50	41 11
9	00	39 49	38 58	38 06	37 15	36 25	35 35	34 46	33 57	33 09	32 21	31 33	30 46	9	00	00	39 49
	10	38 21	37 30	36 40	35 50	35 01	34 12	33 25	32 36	31 49	31 03	30 16	29 31		10	10	38 21
	20	36 48	35 58	35 09	34 21	33 32	32 45	31 58	31 12	30 26	29 41	28 56	28 12		20	20	36 48
	30	35 09	34 20	33 32	32 45	31 58	31 13	30 28	29 42	28 59	28 15	27 32	26 50		30	30	35 09
	40	33 25	32 38	31 51	31 05	30 20	29 36	28 52	28 10	27 27	26 45	26 04	25 23		40	40	33 25
	50	31 35	30 49	30 04	29 21	28 37	27 55	27 13	26 32	25 51	25 11	24 31	23 52		50	50	31 35
10	00	29 39	28 55	28 13	27 31	26 49	26 09	25 29	24 50	24 12	23 34	22 56	22 19	10	00	00	29 39
	10	27 38	26 56	26 15	25 36	24 56	24 18	23 40	23 03	22 27	21 52	21 17	20 42		10	10	27 38
	20	25 30	24 50	24 13	23 36	22 59	22 23	21 48	21 14	20 39	20 06	19 34	19 01		20	20	25 30
	30	23 17	22 41	22 05	21 31	20 56	20 23	19 51	19 19	18 48	18 18</						

AZIMUTH OR TRUE BEARING.

LATITUDE 11°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 11°.		
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.			
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	2 47	2 39	2 33	2 27	2 20	2 14	2 09	2 04	1 58	1 53	1 49	1 44		10		
	20	5 31	5 19	5 05	4 53	4 40	4 29	4 17	4 07	3 56	3 46	3 36	3 28		20		
	30	8 14	7 54	7 35	7 17	6 58	6 41	6 25	6 09	5 53	5 38	5 24	5 10		30		
	40	10 54	10 27	10 02	9 37	9 14	8 51	8 29	8 08	7 48	7 28	7 09	6 51		40		
	50	13 28	12 56	12 24	11 55	11 26	10 59	10 32	10 06	9 40	9 17	8 53	8 30		50		
1	00	15 56	15 19	14 43	14 08	13 34	13 02	12 30	12 00	11 30	11 02	10 34	10 08	1	00		
	10	18 19	17 37	16 56	16 17	15 39	15 01	14 25	13 51	13 18	12 44	12 13	11 42		10		
	20	20 35	19 48	19 03	18 19	17 37	16 56	16 16	15 37	15 00	14 24	13 48	13 14		20		
	30	22 43	21 53	21 04	20 17	19 31	18 47	18 03	17 20	16 39	15 59	15 21	14 43		30		
	40	24 44	23 51	22 58	22 08	21 19	20 31	19 44	18 59	18 14	17 32	16 49	16 08		40		
	50	26 38	25 41	24 46	23 53	23 01	22 10	21 20	20 32	19 45	18 59	18 14	17 30		50		
2	00	28 24	27 25	26 27	25 32	24 38	23 44	22 51	22 01	21 11	20 22	19 35	18 49	2	00		
	10	30 02	29 01	28 02	27 04	26 08	25 12	24 18	23 25	22 32	21 41	20 52	20 03		10		
	20	31 33	30 31	29 30	28 31	27 33	26 35	25 39	24 44	23 49	22 56	22 04	21 13		20		
	30	32 57	31 54	30 51	29 51	28 52	27 53	26 55	25 57	25 02	24 07	23 13	22 20		30		
	40	34 15	33 11	32 08	31 06	30 04	29 05	28 05	27 07	26 09	25 13	24 17	23 23		40		
	50	35 26	34 21	33 16	32 14	31 12	30 10	29 10	28 10	27 12	26 14	25 17	24 21		50		
3	00	36 31	35 25	34 21	33 17	32 14	31 12	30 10	29 10	28 10	27 11	26 13	25 15	3	00		
	10	37 29	36 24	35 18	34 14	33 11	32 09	31 06	30 04	29 04	28 04	27 05	26 06		10		
	20	38 22	37 17	36 11	35 07	34 03	33 00	31 57	30 55	29 54	28 53	27 53	26 53		20		
	30	39 10	38 04	36 59	35 54	34 50	33 47	32 43	31 41	30 39	29 37	28 37	27 37		30		
	40	39 53	38 46	37 41	36 37	35 32	34 28	33 25	32 22	31 19	30 18	29 17	28 16		40		
	50	40 30	39 24	38 18	37 14	36 10	35 06	34 02	32 59	31 56	30 54	29 53	28 51		50		
4	00	41 03	39 57	38 52	37 48	36 43	35 40	34 36	33 32	32 29	31 26	30 25	29 23	4	00		
	10	41 31	40 25	39 21	38 17	37 13	36 09	35 05	34 02	32 58	31 56	30 53	29 51		10		
	20	41 55	40 50	39 46	38 41	37 38	36 34	35 30	34 27	33 24	32 20	31 18	30 16		20		
	30	42 15	41 10	40 07	39 02	37 58	36 55	35 52	34 48	33 45	32 42	31 40	30 37		30		
	40	42 31	41 27	40 23	39 19	38 16	37 13	36 09	35 07	34 04	33 00	31 58	30 56		40		
	50	42 44	41 39	40 36	39 34	38 30	37 27	36 23	35 21	34 18	33 15	32 13	31 11		50		
5	00	42 52	41 49	40 46	39 43	38 41	37 38	36 34	35 32	34 29	33 27	32 25	31 22	5	00		
	10	42 57	41 54	40 51	39 49	38 47	37 45	36 42	35 40	34 38	33 35	32 33	31 31		10		
	20	42 59	41 56	40 54	39 52	38 50	37 48	36 46	35 44	34 43	33 40	32 38	31 36		20		
	30	42 57	41 55	40 53	39 52	38 50	37 48	36 47	35 46	34 44	33 42	32 41	31 39		30		
	40	42 51	41 51	40 49	39 48	38 47	37 46	36 45	35 43	34 42	33 40	32 39	31 38		40		
	50	42 44	41 43	40 42	39 41	38 41	37 40	36 39	35 38	34 37	33 36	32 35	31 35		50		
6	00	42 32	41 32	40 31	39 32	38 31	37 31	36 31	35 30	34 30	33 29	32 29	31 28	6	00		
	10	42 18	41 18	40 17	39 18	38 18	37 19	36 19	35 19	34 19	33 19	32 19	31 19		10		
	20	41 59	41 00	40 01	39 02	38 03	37 04	36 04	35 05	34 05	33 05	32 06	31 07		20		
	30	41 39	40 40	39 41	38 43	37 44	36 45	35 46	34 47	33 49	32 50	31 51	30 52		30		
	40	41 14	40 17	39 18	38 20	37 22	36 25	35 26	34 27	33 29	32 31	31 33	30 34		40		
	50	40 47	39 50	38 52	37 55	36 57	36 00	35 02	34 05	33 07	32 09	31 12	30 14		50		
7	00	40 17	39 21	38 23	37 27	36 30	35 33	34 35	33 39	32 42	31 45	30 48	29 51	7	00		
	10	39 44	38 47	37 51	36 55	35 59	35 02	34 07	33 10	32 13	31 17	30 21	29 25		10		
	20	39 08	38 11	37 15	36 20	35 24	34 29	33 34	32 38	31 43	30 47	29 52	28 57		20		
	30	38 28	37 32	36 37	35 43	34 48	33 53	32 58	32 04	31 09	30 14	29 20	28 26		30		
	40	37 44	36 50	35 56	35 02	34 08	33 14	32 20	31 27	30 32	29 38	28 45	27 52		40		
	50	36 58	36 05	35 11	34 18	33 25	32 32	31 38	30 46	29 53	29 00	28 08	27 15		50		
8	00	36 09	35 16	34 24	33 31	32 39	31 46	30 55	30 02	29 11	28 19	27 28	26 36	8	00		
	10	35 16	34 24	33 32	32 41	31 50	30 59	30 07	29 17	28 26	27 35	26 45	25 55		10		
	20	34 20	33 29	32 38	31 48	30 57	30 08	29 17	28 28	27 38	26 48	26 00	25 10		20		
	30	33 20	32 30	31 40	30 51	30 02	29 13	28 24	27 36	26 47	25 59	25 12	24 24		30		
	40	32 17	31 27	30 39	29 52	29 04	28 16	27 29	26 41	25 56	25 07	24 20	23 34		40		
	50	31 10	30 22	29 34	28 48	28 01	27 15	26 29	25 45	24 57	24 12	23 27	22 42		50		
9	00	30 00	29 13	28 27	27 42	26 57	26 11	25 27	24 42	23 58	23 14	22 31	21 48	9	00		
	10	28 46	28 01	27 16	26 32	25 49	25 05	24 22	23 39	22 57	22 14	21 33	20 50		10		
	20	27 28	26 44	26 01	25 20	24 38	23 55	23 15	22 33	21 52	21 12	20 32	19 51		20		
	30	26 08	25 26	24 44	24 04	23 23	22 43	22 04	21 25	20 45	20 07	19 28	18 50		30		
	40	24 43	24 02	23 23	22 45	22 05	21 28	20 50	20 13	19 35	18 59	18 23	17 46		40		
	50	23 15	22 37	21 58	21 22	20 45	20 10	19 34	19 59	18 23	17 49	17 14	16 40		50		
10	00	21 43	21 07	20 31	19 58	19 23	18 49	18 15	17 41	17 08	16 36	16 04	15 32	10	00		
	10	20 08	19 35	19 01	18 29	17 57	17 25	16 54	16 23	15 52	15 21	14 52	14 21		10		
	20	18 31	17 59	17 28	16 59	16 29	15 59	15 30	15 02	14 33	14 05	13 38	13 10		20		
	30	16 49	16 20	15 52	15 25	14 58	14 31	14 05	13 38	13 12	12 47	12 21	11 57		30		
	40	16 03	14 38	14 14	13 49	13 24	13 00	12 36	12 13	11 49	11 26	11 03	10 41		40		
	50	13 18	12 55	12 32	12 10	11 49	11 27	11 06	10 45	10 25	10 04	9 44	9 24		50		
11	00	11 29	11 09	10 49	10 30	10 11	9 53	9 34	9 16	8 59	8 41	8 23	8 05	11	00		
	10	9 38	9 21	9 04	8 48	8 31	8 16	8 00	7 46	7 30	7 16	7 01	6 47		10		
	20	7 44	7 31	7 18	7 04	6 52	6 39	6 26	6 14	6 02	5 50	5 39	5 27		20		
	30	5 50	5 39	5 29	5 19	5 09	5 00	4 51	4 41	4 33	4 23	4 14	4 06		30		
	40	3 53	3 47	3 40	3 33	3 27	3 21	3 14	3 08	3 02	2 56	2 50	2 44		40		
	50	1 57	1 54	1 50	1 47	1 43	1 40	1 37	1 34	1 31	1 28	1 25	1 22		50		
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00		

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 11°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 11°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	1	2	3	4	5	6	7	8	9	10	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	1 39	1 34	1 31	1 27	1 22	1 18	1 14	1 11	1 07	1 03	1 00		10	
	20	3 18	3 10	3 01	2 53	2 44	2 36	2 29	2 21	2 13	2 07	1 59		20	
	30	4 56	4 43	4 31	4 18	4 06	3 53	3 42	3 31	3 20	3 10	2 59		30	
	40	6 33	6 16	5 59	5 42	5 27	5 10	4 55	4 40	4 26	4 11	3 58		40	
	50	8 08	7 47	7 25	7 05	6 45	6 26	6 07	5 49	5 31	5 13	4 56		50	
1	00	9 42	9 16	8 51	8 27	8 04	7 40	7 18	6 56	6 34	6 13	5 52	1	00	
	10	11 12	10 43	10 14	9 47	9 19	8 53	8 27	8 02	7 38	7 13	6 49		10	
	20	12 41	12 08	11 35	11 04	10 35	10 04	9 35	9 06	8 39	8 11	7 44		20	
	30	14 06	13 30	12 55	12 20	11 47	11 13	10 41	10 10	9 38	9 08	8 38		30	
	40	15 28	14 49	14 10	13 33	12 56	12 20	11 45	11 10	10 36	10 03	9 30		40	
	50	16 47	16 05	15 23	14 44	14 04	13 25	12 46	12 09	11 32	10 56	10 21		50	
2	00	18 03	17 18	16 34	15 51	15 09	14 28	13 47	13 06	12 27	11 48	11 11	2	00	
	10	19 15	18 28	17 41	16 55	16 11	15 27	14 43	14 01	13 19	12 38	11 58		10	
	20	20 22	19 34	18 45	17 57	17 11	16 25	15 38	14 54	14 10	13 26	12 44		20	
	30	21 27	20 36	19 45	18 56	18 07	17 19	16 31	15 44	14 58	14 12	13 27		30	
	40	22 28	21 35	20 43	19 51	19 01	18 10	17 20	16 31	15 43	14 55	14 08		40	
	50	23 26	22 31	21 37	20 43	19 51	18 59	18 07	17 16	16 27	15 37	14 48		50	
3	00	24 19	23 23	22 27	21 32	20 38	19 45	18 52	17 59	17 08	16 16	15 26	3	00	
	10	25 09	24 11	23 15	22 18	21 23	20 27	19 33	18 39	17 46	16 54	16 01		10	
	20	25 54	24 56	23 58	23 01	22 04	21 08	20 12	19 17	18 22	17 28	16 34		20	
	30	26 37	25 37	24 38	23 40	22 42	21 45	20 48	19 52	18 55	18 00	17 05		30	
	40	27 15	26 15	25 15	24 16	23 18	22 19	21 21	20 23	19 26	18 30	17 34		40	
	50	27 50	26 50	25 49	24 49	23 50	22 50	21 51	20 53	19 55	18 57	18 00		50	
4	00	28 21	27 21	26 19	25 19	24 19	23 19	22 19	21 20	20 21	19 22	18 25	4	00	
	10	28 50	27 48	26 46	25 45	24 45	23 44	22 44	21 45	20 45	19 46	18 46		10	
	20	29 14	28 12	27 10	26 09	25 08	24 08	23 07	22 05	21 06	20 05	19 07		20	
	30	29 35	28 33	27 31	26 30	25 29	24 27	23 26	22 25	21 24	20 24	19 24		30	
	40	29 53	28 52	27 49	26 47	25 46	24 44	23 43	22 42	21 41	20 39	19 39		40	
	50	30 08	29 06	28 04	27 02	26 01	24 58	23 56	22 55	21 54	20 53	19 52		50	
5	00	30 20	29 19	28 15	27 13	26 12	25 10	24 08	23 06	22 05	21 04	20 02	5	00	
	10	30 29	29 27	28 24	27 23	26 21	25 19	24 18	23 15	22 14	21 13	20 11		10	
	20	30 35	29 33	28 31	27 29	26 27	25 26	24 24	23 22	22 20	21 18	20 17		20	
	30	30 37	29 35	28 33	27 32	26 31	25 29	24 27	23 25	22 25	21 23	20 21		30	
	40	30 37	29 36	28 34	27 33	26 32	25 31	24 28	23 27	22 26	21 24	20 23		40	
	50	30 34	29 33	28 31	27 31	26 30	25 28	24 28	23 27	22 25	21 24	20 23		50	
6	00	30 28	29 27	28 27	27 26	26 26	25 25	24 23	23 23	22 22	21 21	20 20	6	00	
	10	30 19	29 19	28 19	27 19	26 18	25 19	24 18	23 17	22 17	21 17	20 16		10	
	20	30 08	29 08	28 09	27 09	26 09	25 09	24 09	23 09	22 09	21 09	20 10		20	
	30	29 53	28 54	27 55	26 56	25 57	24 58	23 58	22 59	22 00	21 00	20 01		30	
	40	29 36	28 38	27 39	26 41	25 42	24 44	23 45	22 46	21 47	20 49	19 50		40	
	50	29 16	28 19	27 21	26 23	25 25	24 28	23 30	22 31	21 33	20 35	19 37		50	
7	00	28 54	27 58	27 01	26 04	25 07	24 09	23 11	22 14	21 17	20 20	19 23	7	00	
	10	28 28	27 33	26 37	25 41	24 45	23 48	22 51	21 55	20 59	20 03	19 06		10	
	20	28 01	27 07	26 11	25 16	24 21	23 25	22 29	21 33	20 38	19 43	18 48		20	
	30	27 31	26 37	25 43	24 48	23 54	23 00	22 05	21 10	20 16	19 21	18 27		30	
	40	26 58	26 06	25 12	24 19	23 25	22 32	21 38	20 44	19 51	18 58	18 05		40	
	50	26 22	25 31	24 38	23 46	22 53	22 02	21 09	20 17	19 25	18 32	17 40		50	
8	00	25 45	24 53	24 02	23 11	22 20	21 29	20 37	19 46	18 56	18 05	17 14	8	00	
	10	25 04	24 15	23 24	22 34	21 45	20 55	20 05	19 15	18 25	17 35	16 46		10	
	20	24 21	23 32	22 43	21 55	21 07	20 18	19 29	18 41	17 53	17 05	16 16		20	
	30	23 36	22 48	22 01	21 14	20 27	19 39	18 52	18 06	17 18	16 32	15 45		30	
	40	22 47	22 02	21 16	20 30	19 44	18 59	18 13	17 28	16 43	15 57	15 12		40	
	50	21 57	21 13	20 28	19 44	19 00	18 16	17 32	16 48	16 05	15 21	14 38		50	
9	00	21 04	20 22	19 39	18 55	18 13	17 32	16 49	16 06	15 25	14 43	14 01	9	00	
	10	20 09	19 28	18 47	18 06	17 25	16 44	16 05	15 24	14 44	14 03	13 24		10	
	20	19 12	18 32	17 53	17 14	16 35	15 56	15 18	14 39	14 01	13 23	12 44		20	
	30	18 12	17 35	16 57	16 20	15 43	15 06	14 29	13 53	13 17	12 40	12 04		30	
	40	17 10	16 35	15 59	15 24	14 49	14 14	13 40	13 05	12 30	11 56	11 22		40	
	50	16 06	15 33	15 00	14 26	13 53	13 20	12 47	12 15	11 43	11 11	10 39		50	
10	00	15 01	14 29	13 58	13 27	12 56	12 25	11 55	11 24	10 54	10 24	9 54	10	00	
	10	13 52	13 23	12 54	12 25	11 57	11 29	11 00	10 33	10 05	9 37	9 09		10	
	20	12 42	12 17	11 50	11 23	10 57	10 31	10 05	9 39	9 14	8 48	8 23		20	
	30	11 32	11 07	10 43	10 19	9 55	9 32	9 08	8 45	8 22	7 59	7 36		30	
	40	10 19	9 57	9 35	9 13	8 52	8 31	8 10	7 49	7 28	7 07	6 47		40	
	50	9 05	8 45	8 26	8 07	7 48	7 30	7 11	6 52	6 34	6 16	5 57		50	
11	00	7 49	7 32	7 16	6 59	6 43	6 27	6 10	5 55	5 40	5 23	5 08	11	00	
	10	6 32	6 19	6 05	5 51	5 38	5 23	5 10	4 57	4 44	4 31	4 18		10	
	20	5 15	5 04	4 53	4 42	4 31	4 20	4 09	3 58	3 48	3 37	3 26		20	
	30	3 57	3 48	3 40	3 31	3 23	3 15	3 07	2 59	2 51	2 43	2 35		30	
	40	2 39	2 33	2 27	2 22	2 16	2 11	2 06	1 59	1 54	1 49	1 44		40	
	50	1 19	1 17	1 14	1 11	1 08	1 06	1 03	1 00	0 58	0 55	0 52		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 12°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 12°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	10 51	9 58	9 12	8 32	7 57	7 25	6 58	6 33	6 10	5 50	5 31	5 14		10
	20	20 53	19 17	17 54	16 39	15 33	14 35	13 42	12 54	12 10	11 31	10 54	10 20		20
	30	29 39	27 34	25 43	24 04	22 34	21 13	20 00	18 53	17 51	16 55	16 03	15 15		30
	40	36 58	34 38	32 31	30 36	28 50	27 15	25 46	24 23	23 09	21 58	20 53	19 53		40
	50	42 57	40 32	38 18	36 13	34 19	32 33	30 53	29 22	27 56	26 37	25 21	24 11		50
1	00	47 48	45 24	43 08	41 01	39 02	37 10	35 26	33 47	32 14	30 47	29 25	28 08	1	00
	10	51 44	49 23	47 11	45 03	43 03	41 10	39 23	37 40	36 04	34 32	33 06	31 43		10
	20	54 56	52 41	50 31	48 27	46 29	44 36	42 48	41 05	39 26	37 52	36 22	34 56		20
	30	57 33	55 24	53 20	51 19	49 24	47 33	45 46	44 03	42 24	40 49	39 17	37 49		30
	40	59 42	57 39	55 40	53 45	51 52	50 05	48 19	46 37	45 00	43 25	41 53	40 25		40
	50	61 28	59 32	57 38	55 46	53 59	52 14	50 32	48 52	47 15	45 42	44 10	42 42		50
2	00	62 56	61 05	59 18	57 31	55 47	54 05	52 26	50 49	49 14	47 42	46 12	44 44	2	00
	10	64 09	62 25	60 41	58 59	57 19	55 40	54 05	52 30	50 57	49 27	47 58	46 31		10
	20	65 11	63 31	61 52	60 13	58 37	57 03	55 29	53 57	52 27	50 58	49 31	48 06		20
	30	66 03	64 27	62 52	61 17	59 45	58 13	56 43	55 14	53 46	52 18	50 53	49 30		30
	40	66 45	65 13	63 42	62 11	60 41	59 13	57 46	56 19	54 53	53 29	52 05	50 43		40
	50	67 20	65 51	64 24	62 56	61 30	60 05	58 40	57 16	55 52	54 30	53 08	51 47		50
3	00	67 48	66 23	64 59	63 35	62 11	60 48	59 26	58 04	56 43	55 23	54 03	52 44	3	00
	10	68 12	66 49	65 28	64 06	62 45	61 25	60 05	58 46	57 27	56 08	54 51	53 33		10
	20	68 29	67 11	65 51	64 33	63 14	61 55	60 38	59 20	58 03	56 47	55 31	54 15		20
	30	68 43	67 27	66 10	64 53	63 37	62 21	61 05	59 50	58 35	57 20	56 06	54 52		30
	40	68 54	67 39	66 25	65 10	63 55	62 41	61 28	60 14	59 01	57 48	56 34	55 22		40
	50	68 59	67 48	66 35	65 22	64 10	62 57	61 45	60 34	59 22	58 11	56 59	55 48		50
4	00	69 03	67 52	66 42	65 31	64 20	63 10	61 59	60 49	59 39	58 28	57 18	56 09	4	00
	10	69 03	67 54	66 46	65 46	64 27	63 18	62 09	60 59	59 51	58 43	57 33	56 25		10
	20	69 01	67 53	66 46	65 38	64 30	63 22	62 15	61 08	60 00	58 53	57 45	56 37		20
	30	68 56	67 49	66 43	65 36	64 30	63 24	62 17	61 11	60 05	58 58	57 52	56 46		30
	40	68 49	67 43	66 38	65 33	64 27	63 23	62 18	61 12	60 06	59 02	57 56	56 51		40
	50	68 38	67 34	66 31	65 26	64 22	63 18	62 14	61 10	60 05	59 02	57 57	56 52		50
5	00	68 26	67 23	66 20	65 17	64 14	63 11	62 08	61 04	60 01	58 57	57 54	56 51	5	00
	10	68 12	67 09	66 08	65 06	64 03	63 01	61 59	60 56	59 53	58 51	57 48	56 46		10
	20	67 55	66 54	65 53	64 52	63 49	62 48	61 47	60 45	59 43	58 41	57 39	56 37		20
	30	67 36	66 36	65 35	64 35	63 34	62 33	61 32	60 31	59 30	58 28	57 27	56 27		30
	40	67 16	66 16	65 16	64 15	63 15	62 15	61 14	60 15	59 14	58 13	57 12	56 12		40
	50	66 53	65 53	64 54	63 54	62 54	61 55	60 55	59 55	58 56	57 55	56 55	55 55		50
6	00	66 28	65 29	64 30	63 31	62 31	61 32	60 32	59 33	58 34	57 35	56 35	55 35	6	00
	10	66 01	65 02	64 03	63 04	62 06	61 07	60 07	59 09	58 10	57 12	56 12	55 13		10
	20	65 31	64 32	63 33	62 36	61 37	60 38	59 40	58 42	57 44	56 45	55 46	54 47		20
	30	64 59	64 00	63 03	62 04	61 06	60 08	59 09	58 11	57 13	56 15	55 17	54 19		30
	40	64 25	63 27	62 29	61 30	60 33	59 34	58 37	57 39	56 41	55 43	54 45	53 48		40
	50	63 48	62 50	61 52	60 54	59 56	58 59	58 01	57 03	56 06	55 08	54 10	53 13		50
7	00	63 08	62 10	61 13	60 15	59 17	58 20	57 22	56 25	55 27	54 30	53 33	52 36	7	00
	10	62 26	61 28	60 30	59 32	58 35	57 37	56 40	55 42	54 46	53 49	52 51	51 55		10
	20	61 41	60 42	59 45	58 47	57 50	56 52	55 55	54 58	54 01	53 04	52 07	51 11		20
	30	60 53	59 55	58 57	57 59	57 01	56 04	55 07	54 09	53 13	52 17	51 20	50 24		30
	40	60 00	59 02	58 04	57 06	56 09	55 12	54 14	53 18	52 22	51 25	50 29	49 33		40
	50	59 05	58 06	57 09	56 11	55 13	54 16	53 20	52 22	51 26	50 30	49 34	48 38		50
8	00	58 04	57 07	56 09	55 11	54 14	53 17	52 20	51 23	50 27	49 31	48 36	47 40	8	00
	10	57 01	56 03	55 05	54 07	53 10	52 13	51 16	50 19	49 24	48 28	47 33	46 38		10
	20	55 54	54 55	53 58	53 00	52 02	51 05	50 09	49 12	48 17	47 21	46 26	45 32		20
	30	54 41	53 42	52 45	51 47	50 49	49 52	48 56	48 00	47 04	46 10	45 15	44 21		30
	40	53 23	52 25	51 27	50 28	49 32	48 34	47 39	46 43	45 48	44 54	44 00	43 07		40
	50	52 00	51 01	50 03	49 06	48 09	47 13	46 17	45 21	44 27	43 33	42 39	41 46		50
9	00	50 31	49 32	48 35	47 37	46 40	45 44	44 49	43 54	43 00	42 07	41 14	40 21	9	00
	10	48 55	47 57	46 59	46 02	45 05	44 10	43 15	42 21	41 28	40 36	39 43	38 52		10
	20	47 14	46 15	45 18	44 21	43 25	42 30	41 37	40 42	39 50	38 59	38 07	37 17		20
	30	45 24	44 26	43 29	42 33	41 37	40 44	39 51	38 58	38 07	37 16	36 25	35 37		30
	40	43 26	42 29	41 32	40 37	39 44	38 50	37 58	37 07	36 16	35 27	34 39	33 51		40
	50	41 19	40 23	39 29	38 34	37 42	36 50	35 59	35 08	34 21	33 33	32 45	31 59		50
10	00	39 05	38 10	37 16	36 23	35 32	34 42	33 53	33 05	32 18	31 31	30 46	30 02	10	00
	10	36 41	35 47	34 56	34 05	33 14	32 26	31 39	30 53	30 08	29 24	28 40	27 58		10
	20	34 07	33 15	32 26	31 36	30 49	30 03	29 18	28 34	27 51	27 10	26 29	25 49		20
	30	31 23	30 33	29 46	29 00	28 15	27 32	26 49	26 09	25 29	24 50	24 11	23 34		30
	40	28 27	27 42	26 58	26 15	25 33	24 52	24 13	23 36	22 59	22 23	21 47	21 14		40
	50	25 23	24 41	24 01	23 21	22 43	22 07	21 30	20 56	20 23	19 51	19 18	18 48		50
11	00	22 08	21 30	20 54	20 18	19 45	19 13	18 41	18 10	17 40	17 12	16 44	16 18	11	00
	10	18 44	18 11	17 40	17 09	16 40	16 12	15 45	15 18	14 54	14 29	14 05	13 42		10
	20	15 11	14 43	14 17	13 52	13 28	13 06	12 44	12 22	12 01	11 41	11 22	11 03		20
	30	11 30	11 09	10 49	10 30	10 12	9 53	9 36	9 20	9 05	8 50	8 34	8 20		30
	40	7 43	7 29	7 16	7 02	6 50	6 38	6 27	6 15	6 05	5 54	5 45	5 34		40
	50	3 53	3 45	3 36	3 33	3 26	3 20	3 14	3 09	3 03	2 58	2 52	2 48		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 12°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 12°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	4 58	4 43	4 29	4 16	4 04	3 53	3 43	3 33	3 23	3 15	3 06	2 58		10
	20	9 50	9 20	8 54	8 29	8 05	7 43	7 22	7 03	6 45	6 27	6 11	5 55		20
	30	14 30	13 48	13 09	12 33	11 59	11 27	10 57	10 28	10 01	9 36	9 12	8 49		30
	40	18 57	18 04	17 15	16 28	15 45	15 03	14 25	13 48	13 12	12 39	12 08	11 38		40
	50	23 06	22 04	21 06	20 10	19 19	18 30	17 43	16 59	16 16	15 36	14 57	14 21		50
1	00	26 55	25 46	24 40	23 39	22 40	21 44	20 51	19 59	19 11	18 25	17 41	16 59	1	00
	10	30 24	29 11	27 59	26 51	25 47	24 46	23 47	22 51	21 57	21 05	20 15	19 28		10
	20	33 34	32 16	31 01	29 49	28 41	27 34	26 31	25 30	24 32	23 36	22 43	21 50		20
	30	36 25	35 05	33 47	32 32	31 20	30 11	29 04	27 59	26 57	25 58	24 59	24 04		30
	40	38 59	37 36	36 16	35 00	33 46	32 34	31 24	30 17	29 12	28 09	27 08	26 10		40
	50	41 15	39 53	38 32	37 14	35 58	34 44	33 33	32 24	31 16	30 11	29 08	28 06		50
2	00	43 18	41 55	40 34	39 15	37 58	36 44	35 31	34 20	33 12	32 04	30 59	29 55	2	00
	10	45 06	43 44	42 23	41 04	39 47	38 31	37 18	36 06	34 56	33 48	32 41	31 36		10
	20	46 42	45 20	44 00	42 41	41 25	40 09	38 55	37 43	36 32	35 23	34 15	33 08		20
	30	48 07	46 47	45 27	44 09	42 52	41 36	40 23	39 11	37 59	36 50	35 41	34 34		30
	40	49 23	48 03	46 45	45 27	44 11	42 56	41 43	40 29	39 18	38 08	36 59	35 51		40
	50	50 28	49 10	47 53	46 36	45 21	44 06	42 53	41 41	40 30	39 19	38 10	37 02		50
3	00	51 27	50 09	48 53	47 37	46 23	45 10	43 57	42 44	41 34	40 23	39 14	38 06	3	00
	10	52 17	51 01	49 46	48 31	47 18	46 05	44 53	43 42	42 31	41 21	40 12	39 04		10
	20	53 01	51 47	50 32	49 19	48 06	46 54	45 43	44 32	43 22	42 13	41 04	39 56		20
	30	53 39	52 25	51 13	50 01	48 49	47 38	46 27	45 17	44 07	42 58	41 50	40 42		30
	40	54 10	52 59	51 48	50 36	49 26	48 15	47 05	45 56	44 47	43 38	42 31	41 23		40
	50	54 37	53 27	52 17	51 07	49 57	48 48	47 38	46 30	45 22	44 14	43 06	41 59		50
4	00	54 59	53 50	52 41	51 32	50 23	49 15	48 06	46 58	45 51	44 44	43 37	42 30	4	00
	10	55 16	54 09	53 00	51 53	50 45	49 37	48 30	47 23	46 16	45 10	44 03	42 57		10
	20	55 30	54 24	53 16	52 09	51 03	49 56	48 49	47 42	46 37	45 30	44 25	43 20		20
	30	55 39	54 33	53 27	52 21	51 16	50 10	49 04	47 59	46 53	45 47	44 42	43 38		30
	40	55 45	54 40	53 35	52 30	51 25	50 20	49 15	48 10	47 05	46 01	44 56	43 52		40
	50	55 48	54 44	53 40	52 35	51 31	50 27	49 22	48 19	47 14	46 10	45 06	44 02		50
5	00	55 47	54 44	53 41	52 36	51 33	50 29	49 26	48 23	47 19	46 16	45 12	44 09	5	00
	10	55 43	54 41	53 37	52 34	51 32	50 29	49 26	48 23	47 21	46 17	45 14	44 12		10
	20	55 35	54 33	53 31	52 29	51 27	50 25	49 23	48 21	47 19	46 16	45 14	44 12		20
	30	55 25	54 24	53 22	52 21	51 19	50 17	49 16	48 14	47 13	46 11	45 10	44 08		30
	40	55 11	54 11	53 10	52 09	51 09	50 07	49 07	48 06	47 04	46 04	45 03	44 02		40
	50	54 55	53 56	52 55	51 55	50 55	49 54	48 54	47 54	46 54	45 53	44 52	43 51		50
6	00	54 36	53 36	52 37	51 37	50 37	49 37	48 38	47 38	46 38	45 38	44 38	43 39	6	00
	10	54 14	53 15	52 15	51 16	50 17	49 18	48 19	47 19	46 20	45 21	44 20	43 21		10
	20	53 49	52 50	51 51	50 53	49 55	48 55	47 57	46 58	45 59	44 59	43 59	42 59		20
	30	53 21	52 23	51 24	50 26	49 28	48 30	47 32	46 33	45 34	44 36	43 38	42 40		30
	40	52 49	51 52	50 54	49 56	48 58	48 00	47 03	46 05	45 07	44 09	43 11	42 14		40
	50	52 16	51 19	50 21	49 23	48 27	47 29	46 32	45 34	44 37	43 40	42 42	41 45		50
7	00	51 39	50 41	49 45	48 47	47 51	46 54	45 57	45 00	44 03	43 06	42 10	41 13	7	00
	10	50 58	50 01	49 05	48 08	47 12	46 16	45 19	44 23	43 26	42 30	41 34	40 38		10
	20	50 15	49 19	48 21	47 25	46 30	45 34	44 39	43 42	42 46	41 50	40 55	40 00		20
	30	49 27	48 32	47 36	46 40	45 43	44 49	43 54	42 57	42 03	41 08	40 14	39 18		30
	40	48 37	47 42	46 46	45 51	44 56	44 01	43 06	42 11	41 16	40 22	39 28	38 34		40
	50	47 43	46 48	45 53	44 58	44 03	43 09	42 15	41 20	40 26	39 33	38 40	37 47		50
8	00	46 45	45 50	44 56	44 01	43 07	42 14	41 20	40 26	39 33	38 40	37 48	36 55	8	00
	10	45 43	44 49	43 55	43 01	42 08	41 14	40 22	39 29	38 36	37 44	36 52	36 00		10
	20	44 37	43 43	42 50	41 57	41 04	40 12	39 19	38 27	37 36	36 44	35 54	35 02		20
	30	43 28	42 35	41 41	40 49	39 57	39 05	38 14	37 22	36 32	35 41	34 51	34 01		30
	40	42 13	41 20	40 29	39 36	38 46	37 54	37 04	36 13	35 23	34 34	33 45	32 56		40
	50	40 54	40 02	39 11	38 19	37 30	36 39	35 50	35 01	34 12	33 23	32 35	31 47		50
9	00	39 30	38 39	37 49	36 59	36 09	35 20	34 31	33 43	32 56	32 09	31 22	30 35	9	00
	10	38 02	37 12	36 22	35 32	34 44	33 56	33 09	32 23	31 37	30 50	30 05	29 20		10
	20	36 28	35 39	34 50	34 02	33 16	32 29	31 43	30 57	30 13	29 28	28 45	28 01		20
	30	34 49	34 01	33 14	32 28	31 42	30 56	30 12	29 29	28 45	28 02	27 20	26 39		30
	40	33 04	32 18	31 33	30 47	30 04	29 19	28 37	27 55	27 14	26 32	25 52	25 12		40
	50	31 14	30 30	29 46	29 02	28 21	27 39	26 58	26 18	25 38	24 58	24 20	23 42		50
10	00	29 19	28 36	27 55	27 13	26 33	25 54	25 14	24 36	23 58	23 21	22 45	22 09	10	00
	10	27 17	26 37	25 57	25 18	24 40	24 03	23 26	22 50	22 15	21 40	21 05	20 31		10
	20	25 11	24 33	23 56	23 19	22 43	22 08	21 34	21 01	20 27	19 55	19 23	18 51		20
	30	22 58	22 23	21 48	21 15	20 42	20 10	19 38	19 07	18 37	18 06	17 37	17 08		30
	40	20 41	20 09	19 37	19 06	18 36	18 07	17 38	17 10	16 42	16 14	15 49	15 22		40
	50	18 19	17 49	17 21	16 53	16 27	16 00	15 34	15 09	14 44	14 20	13 56	13 33		50
11	00	15 51	15 25	15 01	14 36	14 13	13 49	13 28	13 06	12 44	12 23	12 02	11 42	11	00
	10	13 19	12 58	12 37	12 17	11 57	11 37	11 18	10 59	10 41	10 23	10 05	9 49		10
	20	10 45	10 26	10 09	9 53	9 37	9 21	9 04	8 50	8 35	8 21	8 08	7 53		20
	30	8 06	7 52	7 40	7 27	7 14	7 03	6 51	6 39	6 29	6 17	6 07	5 56		30
	40	5 26	5 16	5 08	4 59	4 51	4 43	4 34	4 27	4 19	4 13	4 05	3 58		40
	50	2 43	2 38	2 34	2 30	2 26	2 22	2 17	2 13	2 10	2 07	2 03	1 59		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 12°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 12°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	2 51	2 43	2 36	2 29	2 24	2 17	2 11	2 06	2 01	1 55	1 50	1 45	0	10
0	20	8 26	8 20	8 12	8 05	7 58	7 51	7 44	7 37	7 30	7 23	7 16	7 10	0	20
0	30	13 09	13 04	13 00	12 55	12 50	12 45	12 40	12 35	12 30	12 25	12 20	12 15	0	30
0	40	17 46	17 42	17 38	17 34	17 30	17 26	17 22	17 18	17 14	17 10	17 06	17 02	0	40
0	50	22 23	22 20	22 16	22 12	22 08	22 04	22 00	21 56	21 52	21 48	21 44	21 40	0	50
1	00	27 00	26 57	26 53	26 49	26 45	26 41	26 37	26 33	26 29	26 25	26 21	26 17	1	00
1	10	31 37	31 34	31 30	31 26	31 22	31 18	31 14	31 10	31 06	31 02	30 58	30 54	1	10
1	20	36 14	36 11	36 07	36 03	35 59	35 55	35 51	35 47	35 43	35 39	35 35	35 31	1	20
1	30	40 51	40 48	40 44	40 40	40 36	40 32	40 28	40 24	40 20	40 16	40 12	40 08	1	30
1	40	45 28	45 25	45 21	45 17	45 13	45 09	45 05	45 01	44 57	44 53	44 49	44 45	1	40
1	50	50 05	50 02	50 00	49 56	49 52	49 48	49 44	49 40	49 36	49 32	49 28	49 24	1	50
2	00	54 42	54 39	54 35	54 31	54 27	54 23	54 19	54 15	54 11	54 07	54 03	54 00	2	00
2	10	59 19	59 16	59 12	59 08	59 04	59 00	58 56	58 52	58 48	58 44	58 40	58 36	2	10
2	20	63 56	63 53	63 49	63 45	63 41	63 37	63 33	63 29	63 25	63 21	63 17	63 13	2	20
2	30	68 33	68 30	68 26	68 22	68 18	68 14	68 10	68 06	68 02	67 58	67 54	67 50	2	30
2	40	73 10	73 07	73 03	72 59	72 55	72 51	72 47	72 43	72 39	72 35	72 31	72 27	2	40
2	50	77 47	77 44	77 40	77 36	77 32	77 28	77 24	77 20	77 16	77 12	77 08	77 04	2	50
3	00	82 24	82 21	82 17	82 13	82 09	82 05	82 01	81 57	81 53	81 49	81 45	81 41	3	00
3	10	87 01	86 58	86 54	86 50	86 46	86 42	86 38	86 34	86 30	86 26	86 22	86 18	3	10
3	20	91 78	91 75	91 71	91 67	91 63	91 59	91 55	91 51	91 47	91 43	91 39	91 35	3	20
3	30	96 55	96 52	96 48	96 44	96 40	96 36	96 32	96 28	96 24	96 20	96 16	96 12	3	30
3	40	101 32	101 29	101 25	101 21	101 17	101 13	101 09	101 05	101 01	100 57	100 53	100 49	3	40
3	50	106 09	106 06	106 02	105 58	105 54	105 50	105 46	105 42	105 38	105 34	105 30	105 26	3	50
4	00	110 86	110 83	110 79	110 75	110 71	110 67	110 63	110 59	110 55	110 51	110 47	110 43	4	00
4	10	115 63	115 60	115 56	115 52	115 48	115 44	115 40	115 36	115 32	115 28	115 24	115 20	4	10
4	20	120 40	120 37	120 33	120 29	120 25	120 21	120 17	120 13	120 09	120 05	120 01	119 57	4	20
4	30	125 17	125 14	125 10	125 06	125 02	124 58	124 54	124 50	124 46	124 42	124 38	124 34	4	30
4	40	129 94	129 91	129 87	129 83	129 79	129 75	129 71	129 67	129 63	129 59	129 55	129 51	4	40
4	50	134 71	134 68	134 64	134 60	134 56	134 52	134 48	134 44	134 40	134 36	134 32	134 28	4	50
5	00	139 48	139 45	139 41	139 37	139 33	139 29	139 25	139 21	139 17	139 13	139 09	139 05	5	00
5	10	144 25	144 22	144 18	144 14	144 10	144 06	144 02	143 58	143 54	143 50	143 46	143 42	5	10
5	20	149 02	148 59	148 55	148 51	148 47	148 43	148 39	148 35	148 31	148 27	148 23	148 19	5	20
5	30	153 79	153 76	153 72	153 68	153 64	153 60	153 56	153 52	153 48	153 44	153 40	153 36	5	30
5	40	158 56	158 53	158 49	158 45	158 41	158 37	158 33	158 29	158 25	158 21	158 17	158 13	5	40
5	50	163 33	163 30	163 26	163 22	163 18	163 14	163 10	163 06	163 02	162 58	162 54	162 50	5	50
6	00	168 10	168 07	168 03	167 99	167 95	167 91	167 87	167 83	167 79	167 75	167 71	167 67	6	00
6	10	172 87	172 84	172 80	172 76	172 72	172 68	172 64	172 60	172 56	172 52	172 48	172 44	6	10
6	20	177 64	177 61	177 57	177 53	177 49	177 45	177 41	177 37	177 33	177 29	177 25	177 21	6	20
6	30	182 41	182 38	182 34	182 30	182 26	182 22	182 18	182 14	182 10	182 06	182 02	181 58	6	30
6	40	187 18	187 15	187 11	187 07	187 03	186 99	186 95	186 91	186 87	186 83	186 79	186 75	6	40
6	50	191 95	191 92	191 88	191 84	191 80	191 76	191 72	191 68	191 64	191 60	191 56	191 52	6	50
7	00	196 72	196 69	196 65	196 61	196 57	196 53	196 49	196 45	196 41	196 37	196 33	196 29	7	00
7	10	201 49	201 46	201 42	201 38	201 34	201 30	201 26	201 22	201 18	201 14	201 10	201 06	7	10
7	20	206 26	206 23	206 19	206 15	206 11	206 07	206 03	205 99	205 95	205 91	205 87	205 83	7	20
7	30	211 03	211 00	210 56	210 52	210 48	210 44	210 40	210 36	210 32	210 28	210 24	210 20	7	30
7	40	215 80	215 77	215 73	215 69	215 65	215 61	215 57	215 53	215 49	215 45	215 41	215 37	7	40
7	50	220 57	220 54	220 50	220 46	220 42	220 38	220 34	220 30	220 26	220 22	220 18	220 14	7	50
8	00	225 34	225 31	225 27	225 23	225 19	225 15	225 11	225 07	225 03	224 59	224 55	224 51	8	00
8	10	230 11	230 08	230 04	230 00	229 56	229 52	229 48	229 44	229 40	229 36	229 32	229 28	8	10
8	20	234 88	234 85	234 81	234 77	234 73	234 69	234 65	234 61	234 57	234 53	234 49	234 45	8	20
8	30	239 65	239 62	239 58	239 54	239 50	239 46	239 42	239 38	239 34	239 30	239 26	239 22	8	30
8	40	244 42	244 39	244 35	244 31	244 27	244 23	244 19	244 15	244 11	244 07	244 03	243 59	8	40
8	50	249 19	249 16	249 12	249 08	249 04	249 00	248 56	248 52	248 48	248 44	248 40	248 36	8	50
9	00	253 96	253 93	253 89	253 85	253 81	253 77	253 73	253 69	253 65	253 61	253 57	253 53	9	00
9	10	258 73	258 70	258 66	258 62	258 58	258 54	258 50	258 46	258 42	258 38	258 34	258 30	9	10
9	20	263 50	263 47	263 43	263 39	263 35	263 31	263 27	263 23	263 19	263 15	263 11	263 07	9	20
9	30	268 27	268 24	268 20	268 16	268 12	268 08	268 04	268 00	267 56	267 52	267 48	267 44	9	30
9	40	273 04	273 01	272 57	272 53	272 49	272 45	272 41	272 37	272 33	272 29	272 25	272 21	9	40
9	50	277 81	277 78	277 74	277 70	277 66	277 62	277 58	277 54	277 50	277 46	277 42	277 38	9	50
10	00	282 58	282 55	282 51	282 47	282 43	282 39	282 35	282 31	282 27	282 23	282 19	282 15	10	00
10	10	287 35	287 32	287 28	287 24	287 20	287 16	287 12	287 08	287 04	287 00	286 56	286 52	10	10
10	20	292 12	292 09	292 05	292 01	291 57	291 53	291 49	291 45	291 41	291 37	291 33	291 29	10	20
10	30	296 89	296 86	296 82	296 78	296 74	296 70	296 66	296 62	296 58	296 54	296 50	296 46	10	30
10	40	301 66	301 63	301 59	301 55	301 51	301 47	301 43	301 39	301 35	301 31	301 27	301 23	10	40
10	50	306 43	306 40	306 36	306 32	306 28	306 24	306 20	306 16	306 12	306 08	306 04	306 00	10	50
11	00	311 20	311 17	311 13	311 09	311 05	311 01	310 97	310 93	310 89	310 85	310 81	310 77	11	00
11	10	315 97	315 94	315 90	315 86	315 82	315 78	315 74	315 70	315 66	315 62	315 58	315 54	11	10
11	20	320 74	320 71	320 67	320 63	320 59	320 55	320 51	320 47	320 43	320 39	320 35	320 31	11	20
11	30	325 51	325 48	325 44	325 40	325 36	325 32	325 28	325 24	325 20	325 16	325 12	325 08	11	30
11	40	330 28	330 25	330 21	330 17	330 13	330 09	330 05	330 01	329 57	329 53	329 49	329 45	11	40
11	50	335 05	335 02	334 58	334 54	334 50	334 46	334 42	334 38	334 34	334 30	334 26	334 22	11	50
12	00	339 82	339 79	339 75	339 71	339 67	339 63	339 59	339 55	339 51	339 47	339 43	339 39	12	00

AZIMUTH OR TRUE BEARING.

LATITUDE 12°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 12°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	1 41	1 37	1 32	1 27	1 24	1 20	1 16	1 11	1 07	1 04	1 01	1	10	
	20	3 21	3 12	3 03	2 55	2 46	2 39	2 30	2 22	2 16	2 08	2 00	2	20	
	30	5 01	4 47	4 34	4 21	4 09	3 56	3 45	3 34	3 22	3 12	3 01	3	30	
	40	6 39	6 22	6 03	5 47	5 30	5 14	4 59	4 44	4 29	4 14	4 00	4	40	
	50	8 15	7 53	7 32	7 12	6 51	6 31	6 12	5 53	5 34	5 16	4 59	5	50	
1	00	9 51	9 24	8 58	8 34	8 10	7 46	7 23	7 00	6 38	6 18	5 57	1	00	
	10	11 22	10 52	10 23	9 54	9 27	8 59	8 34	8 07	7 42	7 18	6 53	1	10	
	20	12 52	12 17	11 45	11 13	10 42	10 12	9 42	9 13	8 44	8 17	7 49	2	20	
	30	14 17	13 40	13 04	12 30	11 56	11 21	10 48	10 16	9 44	9 13	8 43	2	30	
	40	15 41	15 01	14 21	13 43	13 06	12 29	11 53	11 18	10 43	10 09	9 36	2	40	
	50	17 00	16 16	15 35	14 54	14 14	13 35	12 56	12 17	11 40	11 03	10 27	3	50	
2	00	18 17	17 31	16 46	16 02	15 19	14 37	13 56	13 15	12 35	11 55	11 17	2	00	
	10	19 29	18 41	17 54	17 08	16 22	15 37	14 53	14 10	13 27	12 46	12 04	2	10	
	20	20 38	19 47	18 58	18 09	17 22	16 34	15 48	15 03	14 18	13 33	12 50	2	20	
	30	21 43	20 50	19 59	19 08	18 19	17 29	16 41	15 53	15 06	14 19	13 34	2	30	
	40	22 44	21 50	20 56	20 03	19 12	18 21	17 31	16 41	15 52	15 04	14 16	2	40	
	50	23 40	22 45	21 50	20 56	20 02	19 10	18 18	17 26	16 35	15 45	14 55	3	50	
3	00	24 34	23 37	22 40	21 45	20 50	19 56	19 02	18 08	17 16	16 24	15 33	3	00	
	10	25 23	24 25	23 28	22 31	21 35	20 39	19 44	18 49	17 55	17 01	16 09	3	10	
	20	26 09	25 10	24 11	23 13	22 15	21 19	20 22	19 27	18 31	17 36	16 42	3	20	
	30	26 51	25 51	24 51	23 52	22 54	21 56	20 58	20 01	19 05	18 09	17 13	3	30	
	40	27 29	26 28	25 28	24 28	23 29	22 30	21 32	20 33	19 35	18 39	17 41	3	40	
	50	28 03	27 02	26 01	25 01	24 00	23 01	22 01	21 02	20 03	19 06	18 08	4	50	
4	00	28 34	27 32	26 31	25 30	24 30	23 28	22 29	21 29	20 30	19 31	18 32	4	00	
	10	29 02	28 00	26 58	25 57	24 55	23 54	22 54	21 53	20 53	19 53	18 53	4	10	
	20	29 27	28 23	27 21	26 20	25 18	24 16	23 15	22 15	21 14	20 13	19 14	4	20	
	30	29 47	28 44	27 41	26 40	25 38	24 36	23 34	22 33	21 32	20 31	19 31	4	30	
	40	30 04	29 01	27 59	26 56	25 55	24 53	23 51	22 49	21 47	20 47	19 46	4	40	
	50	30 19	29 16	28 13	27 11	26 09	25 07	24 04	23 03	22 01	20 59	19 58	5	50	
5	00	30 29	29 27	28 25	27 22	26 21	25 18	24 16	23 14	22 11	21 10	20 09	5	00	
	10	30 37	29 35	28 33	27 31	26 28	25 27	24 24	23 23	22 20	21 19	20 17	5	10	
	20	30 42	29 40	28 38	27 37	26 34	25 32	24 30	23 28	22 27	21 24	20 23	5	20	
	30	30 45	29 42	28 41	27 39	26 38	25 35	24 33	23 32	22 29	21 28	20 27	5	30	
	40	30 43	29 42	28 41	27 39	26 38	25 36	24 34	23 32	22 31	21 30	20 28	5	40	
	50	30 40	29 39	28 38	27 36	26 35	25 34	24 32	23 31	22 30	21 29	20 27	6	50	
6	00	30 33	29 33	28 32	27 31	26 31	25 30	24 29	23 27	22 26	21 25	20 25	6	00	
	10	30 23	29 23	28 23	27 23	26 23	25 23	24 22	23 22	22 20	21 20	20 20	6	10	
	20	30 12	29 12	28 12	27 13	26 13	25 13	24 13	23 13	22 13	21 13	20 13	6	20	
	30	29 57	28 58	27 58	26 59	26 01	25 01	24 02	23 03	22 03	21 03	20 04	6	30	
	40	29 39	28 41	27 42	26 44	25 46	24 47	23 48	22 49	21 50	20 52	19 52	6	40	
	50	29 19	28 21	27 23	26 26	25 28	24 30	23 32	22 34	21 36	20 38	19 40	7	50	
7	00	28 55	27 58	27 02	26 05	25 08	24 11	23 13	22 16	21 19	20 22	19 25	7	00	
	10	28 30	27 34	26 38	25 41	24 46	23 50	22 53	21 57	21 00	20 04	19 08	7	10	
	20	28 02	27 07	26 11	25 16	24 21	23 25	22 30	21 35	20 40	19 44	18 49	7	20	
	30	27 31	26 37	25 43	24 48	23 55	23 00	22 06	21 11	20 17	19 22	18 28	7	30	
	40	26 58	26 04	25 11	24 18	23 25	22 31	21 38	20 45	19 51	18 58	18 06	7	40	
	50	26 22	25 29	24 37	23 45	22 54	22 01	21 09	20 17	19 25	18 33	17 41	8	50	
8	00	25 43	24 52	24 01	23 10	22 20	21 29	20 38	19 47	18 56	18 05	17 14	8	00	
	10	25 02	24 12	23 23	22 33	21 44	20 54	20 04	19 14	18 25	17 36	16 46	8	10	
	20	24 19	23 30	22 42	21 54	21 05	20 17	19 29	18 41	17 52	17 04	16 17	8	20	
	30	23 33	22 46	21 58	21 12	20 25	19 38	18 51	18 04	17 18	16 31	15 45	8	30	
	40	22 44	21 58	21 13	20 28	19 42	18 58	18 12	17 26	16 41	15 56	15 11	8	40	
	50	21 53	21 10	20 25	19 42	18 58	18 14	17 30	16 47	16 04	15 20	14 37	9	50	
9	00	21 00	20 17	19 35	18 53	18 11	17 29	16 47	16 06	15 24	14 42	14 01	9	00	
	10	20 05	19 24	18 43	18 03	17 23	16 43	16 02	15 22	14 42	14 02	13 22	9	10	
	20	19 08	18 29	17 50	17 12	16 32	15 54	15 16	14 38	14 00	13 22	12 43	9	20	
	30	18 08	17 30	16 54	16 17	15 40	15 04	14 27	13 51	13 15	12 38	12 03	9	30	
	40	17 06	16 31	15 56	15 21	14 46	14 12	13 37	13 03	12 29	11 54	11 21	9	40	
	50	16 02	15 29	14 56	14 23	13 50	13 18	12 45	12 13	11 41	11 10	10 38	10	50	
10	00	14 57	14 25	13 55	13 24	12 53	12 23	11 53	11 22	10 52	10 23	9 54	10	00	
	10	13 48	13 19	12 51	12 23	11 55	11 26	10 58	10 30	10 02	9 35	9 08	10	10	
	20	12 39	12 13	11 46	11 20	10 54	10 29	10 03	9 38	9 12	8 47	8 22	10	20	
	30	11 28	11 03	10 40	10 16	9 53	9 30	9 06	8 43	8 20	7 57	7 34	10	30	
	40	10 15	9 54	9 32	9 11	8 50	8 30	8 08	7 48	7 27	7 06	6 46	10	40	
	50	9 02	8 43	8 24	8 05	7 46	7 28	7 10	6 51	6 33	6 15	5 57	11	50	
11	00	7 47	7 30	7 14	6 58	6 42	6 25	6 10	5 54	5 38	5 23	5 07	11	00	
	10	6 31	6 17	6 03	5 49	5 36	5 23	5 09	4 56	4 43	4 30	4 17	11	10	
	20	5 14	5 02	4 51	4 41	4 30	4 19	4 08	3 57	3 47	3 36	3 26	11	20	
	30	3 56	3 47	3 39	3 31	3 23	3 15	3 06	2 58	2 51	2 43	2 35	11	30	
	40	2 38	2 32	2 27	2 21	2 16	2 10	2 04	1 59	1 54	1 49	1 44	11	40	
	50	1 19	1 16	1 13	1 10	1 08	1 05	1 02	1 00	0 57	0 54	0 52	12	50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 13°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 13°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.			
h.	m.	°	'	°	'	°	'	°	'	°	'	°	'	°	'	h.	m.
		0	00	0	00	0	00	0	00	0	00	0	00	0	00		
0	00	0	00	0	00	0	00	0	00	0	00	0	00	0	00	0	00
0	10	11	47	10	45	9	53	8	57	7	53	6	54	5	45	5	27
0	20	22	34	20	44	19	09	17	44	15	25	13	34	12	02	11	23
0	30	31	46	29	26	27	21	25	30	22	02	19	49	18	42	16	44
0	40	39	17	36	44	34	23	32	16	28	36	27	00	25	31	24	10
0	50	45	18	42	41	40	15	38	01	34	02	32	16	29	05	27	39
1	00	50	05	47	31	45	05	42	50	38	43	36	51	33	28	31	55
1	10	53	54	51	26	49	04	46	51	42	44	40	50	39	03	37	20
1	20	56	58	54	37	52	21	50	11	48	07	44	15	42	26	40	42
1	30	59	26	57	12	55	03	52	59	50	58	49	02	47	10	45	23
1	40	61	27	59	21	57	17	55	18	53	22	51	30	49	41	47	56
1	50	63	05	61	06	59	09	57	15	55	24	53	35	51	49	50	07
2	00	64	27	62	34	60	42	58	53	57	07	55	23	53	40	52	00
2	10	65	34	63	47	62	00	60	17	58	34	56	54	55	14	53	37
2	20	66	30	64	47	63	06	61	26	59	48	58	12	56	36	55	02
2	30	67	14	65	38	64	01	62	25	60	51	59	17	57	45	56	14
2	40	67	52	66	18	64	46	63	14	61	43	60	14	58	44	57	16
2	50	68	22	66	53	65	23	63	55	61	01	59	35	58	10	58	44
3	00	68	46	67	20	65	55	64	30	63	05	61	41	60	17	58	54
3	10	69	05	67	42	66	19	64	58	63	36	62	14	60	53	59	32
3	20	69	19	67	59	66	39	65	19	64	01	62	41	61	23	60	05
3	30	69	29	68	12	66	55	65	37	64	20	63	04	61	48	60	31
3	40	69	36	68	21	67	05	65	51	64	36	63	21	62	07	60	53
3	50	69	39	68	26	67	12	66	00	64	47	63	34	62	21	61	09
4	00	69	38	68	28	67	16	66	05	64	55	63	43	62	32	61	22
4	10	69	36	68	27	67	17	66	07	64	58	63	49	62	39	61	30
4	20	69	30	68	22	67	14	66	07	64	59	63	51	62	43	61	35
4	30	69	23	68	16	67	10	66	03	64	56	63	50	62	44	61	37
4	40	69	12	68	07	67	02	65	56	64	52	63	46	62	40	61	35
4	50	69	00	67	56	66	52	65	47	64	43	63	39	62	34	61	30
5	00	68	45	67	42	66	39	65	35	64	32	63	29	62	26	61	22
5	10	68	28	67	26	66	24	65	22	64	20	63	17	62	14	61	12
5	20	68	10	67	09	66	06	65	05	64	04	63	03	62	01	60	59
5	30	67	49	66	48	65	47	64	46	63	45	62	45	61	44	60	43
5	40	67	25	66	25	65	25	64	25	63	25	62	25	61	24	60	24
5	50	67	00	66	01	65	01	64	02	63	02	62	03	61	03	60	03
6	00	66	33	65	34	64	35	63	36	62	37	61	38	60	38	59	39
6	10	66	03	65	05	64	06	63	07	62	09	61	10	60	11	59	13
6	20	65	32	64	34	63	35	62	37	61	38	60	40	59	42	58	44
6	30	64	57	64	00	63	01	62	04	61	06	60	08	59	10	58	12
6	40	64	21	63	23	62	26	61	27	60	30	59	32	58	34	57	37
6	50	63	42	62	45	61	47	60	49	59	52	58	55	57	57	56	50
7	00	63	00	62	03	61	05	60	08	59	11	58	13	57	16	56	19
7	10	62	16	61	18	60	20	59	24	58	27	57	30	56	32	55	36
7	20	61	28	60	32	59	34	58	37	57	40	56	42	55	46	54	49
7	30	60	38	59	41	58	43	57	46	56	49	55	53	54	55	53	59
7	40	59	44	58	46	57	49	56	52	54	58	54	52	53	06	52	10
7	50	58	46	57	50	56	52	55	55	54	58	54	52	53	05	52	09
8	00	57	46	56	48	55	50	54	53	53	57	52	04	51	08	50	13
8	10	56	40	55	43	54	45	53	48	52	52	51	55	50	59	50	04
8	20	55	30	54	32	53	35	52	38	51	42	50	46	49	49	48	54
8	30	54	16	53	19	52	21	51	23	50	28	49	32	48	36	47	40
8	40	52	57	51	59	51	02	50	04	49	09	48	13	47	18	46	23
8	50	51	32	50	34	49	36	48	40	47	45	46	49	45	54	44	59
9	00	50	01	49	04	48	06	47	10	46	15	45	20	44	25	43	31
9	10	48	24	47	28	46	30	45	34	44	39	43	45	42	51	41	58
9	20	46	41	45	44	44	48	43	52	42	58	42	04	41	10	40	18
9	30	44	50	43	53	42	58	42	03	41	09	40	16	39	24	38	33
9	40	42	51	41	55	41	01	40	07	39	14	38	23	37	31	36	41
9	50	40	45	39	50	38	57	38	04	37	13	36	22	35	32	34	43
10	00	38	30	37	36	36	44	35	53	35	03	34	14	33	26	32	39
10	10	36	05	35	14	34	23	33	34	32	46	31	59	31	12	30	27
10	20	33	32	32	43	31	53	31	06	30	21	29	36	28	52	28	09
10	30	30	49	30	01	29	16	28	31	27	48	27	06	26	24	25	45
10	40	27	56	27	11	26	28	25	47	25	07	24	29	23	51	23	14
10	50	24	53	24	12	23	33	22	55	22	19	21	44	21	09	20	36
11	00	21	40	21	04	20	30	19	55	19	24	18	53	18	21	17	52
11	10	18	20	17	48	17	18	16	49	16	22	15	54	15	28	14	39
11	20	14	50	14	25	14	00	13	36	13	13	12	51	12	29	12	08
11	30	11	14	10	54	10	35	10	17	10	00	9	42	9	26	9	10
11	40	7	33	7	19	7	06	6	54	6	42	6	31	6	19	6	09
11	50	3	47	3	41	3	34	3	27	3	22	3	16	3	10	3	05
12	00	0	00	0	00	0	00	0	00	0	00	0	00	0	00	0	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 13°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 13°.														
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°		
h.	m.	0	1	2	3	4	5	6	7	8	9	10	11	12	h.	m.	0	1	2	3	4	5	6	7	8	9	10	11	12
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
	10	5 09	4 54	4 39	4 25	4 13	4 01	3 49	3 39	3 29	3 20	3 11	3 03	2 56	1	10	5 09	4 54	4 39	4 25	4 13	4 01	3 49	3 39	3 29	3 20	3 11	3 03	
	20	10 12	9 42	9 13	8 46	8 21	7 58	7 35	7 15	6 56	6 37	6 20	6 04	5 49	2	20	10 12	9 42	9 13	8 46	8 21	7 58	7 35	7 15	6 56	6 37	6 20	6 04	
	30	15 04	14 20	13 38	12 59	12 23	11 49	11 17	10 47	10 18	9 51	9 25	9 01	8 38	3	30	15 04	14 20	13 38	12 59	12 23	11 49	11 17	10 47	10 18	9 51	9 25	9 01	
	40	19 39	18 43	17 50	17 01	16 15	15 31	14 50	14 11	13 34	12 59	12 27	11 55	11 24	4	40	19 39	18 43	17 50	17 01	16 15	15 31	14 50	14 11	13 34	12 59	12 27	11 55	
	50	23 54	22 48	21 47	20 49	19 53	19 02	18 13	17 26	16 42	16 00	15 20	14 41	14 04	5	50	23 54	22 48	21 47	20 49	19 53	19 02	18 13	17 26	16 42	16 00	15 20	14 41	
1	00	27 49	26 36	25 27	24 22	23 20	22 21	21 24	20 31	19 40	18 52	18 06	17 22	16 41	1	00	27 49	26 36	25 27	24 22	23 20	22 21	21 24	20 31	19 40	18 52	18 06	17 22	
	10	31 21	30 04	28 49	27 37	26 29	25 26	24 24	23 25	22 29	21 36	20 44	19 55	19 08		10	31 21	30 04	28 49	27 37	26 29	25 26	24 24	23 25	22 29	21 36	20 44	19 55	
	20	34 33	33 12	31 53	30 38	29 25	28 17	27 11	26 07	25 07	24 08	23 13	22 19	21 28	2	20	34 33	33 12	31 53	30 38	29 25	28 17	27 11	26 07	25 07	24 08	23 13	22 19	
	30	37 25	36 01	34 40	33 22	32 07	30 55	29 45	28 38	27 33	26 32	25 32	24 34	23 38	3	30	37 25	36 01	34 40	33 22	32 07	30 55	29 45	28 38	27 33	26 32	25 32	24 34	
	40	39 58	38 33	37 10	35 50	34 33	33 19	32 07	30 57	29 50	28 45	27 42	26 41	25 41	4	40	39 58	38 33	37 10	35 50	34 33	33 19	32 07	30 57	29 50	28 45	27 42	26 41	
	50	42 14	40 49	39 26	38 04	36 46	35 29	34 16	33 04	31 54	30 48	29 42	28 39	27 38	5	50	42 14	40 49	39 26	38 04	36 46	35 29	34 16	33 04	31 54	30 48	29 42	28 39	
2	00	44 16	42 50	41 27	40 05	38 45	37 28	36 14	35 01	33 49	32 40	31 34	30 27	29 22	2	00	44 16	42 50	41 27	40 05	38 45	37 28	36 14	35 01	33 49	32 40	31 34	30 27	
	10	46 02	44 37	43 14	41 53	40 33	39 16	38 00	36 46	35 34	34 24	33 15	32 08	31 02		10	46 02	44 37	43 14	41 53	40 33	39 16	38 00	36 46	35 34	34 24	33 15	32 08	
	20	47 36	46 12	44 50	43 29	42 10	40 53	39 37	38 22	37 10	35 59	34 49	33 40	32 32	3	20	47 36	46 12	44 50	43 29	42 10	40 53	39 37	38 22	37 10	35 59	34 49	33 40	
	30	48 59	47 36	46 15	44 55	43 37	42 20	41 03	39 49	38 36	37 25	36 15	35 05	34 00	4	30	48 59	47 36	46 15	44 55	43 37	42 20	41 03	39 49	38 36	37 25	36 15	35 05	
	40	50 12	48 51	47 30	46 11	44 53	43 37	42 21	41 07	39 54	38 43	37 33	36 22	35 14	5	40	50 12	48 51	47 30	46 11	44 53	43 37	42 21	41 07	39 54	38 43	37 33	36 22	
	50	51 15	49 56	48 37	47 19	46 02	44 45	43 31	42 17	41 04	39 53	38 42	37 32	36 24	6	50	51 15	49 56	48 37	47 19	46 02	44 45	43 31	42 17	41 04	39 53	38 42	37 32	
3	00	52 11	50 52	49 35	48 18	47 02	45 47	44 33	43 20	42 08	40 56	39 45	38 36	37 28	3	00	52 11	50 52	49 35	48 18	47 02	45 47	44 33	43 20	42 08	40 56	39 45	38 36	
	10	52 59	51 42	50 26	49 10	47 55	46 41	45 28	44 16	43 03	41 43	40 43	39 33	38 25		10	52 59	51 42	50 26	49 10	47 55	46 41	45 28	44 16	43 03	41 43	40 43	39 33	
	20	53 40	52 25	51 10	49 56	48 42	47 29	46 17	45 05	43 54	42 43	41 33	40 24	39 16	4	20	53 40	52 25	51 10	49 56	48 42	47 29	46 17	45 05	43 54	42 43	41 33	40 24	
	30	54 16	53 01	51 48	50 35	49 22	48 10	46 59	45 47	44 37	43 27	42 18	41 08	40 00	5	30	54 16	53 01	51 48	50 35	49 22	48 10	46 59	45 47	44 37	43 27	42 18	41 08	
	40	54 45	53 32	52 20	51 08	49 57	48 46	47 35	46 25	45 16	44 06	42 57	41 48	40 40	6	40	54 45	53 32	52 20	51 08	49 57	48 46	47 35	46 25	45 16	44 06	42 57	41 48	
	50	55 10	53 59	52 48	51 37	50 26	49 16	48 06	46 57	45 48	44 40	43 32	42 24	41 16	7	50	55 10	53 59	52 48	51 37	50 26	49 16	48 06	46 57	45 48	44 40	43 32	42 24	
4	00	55 29	54 20	53 10	52 01	50 51	49 42	48 33	47 25	46 16	45 08	44 00	42 53	41 45	4	00	55 29	54 20	53 10	52 01	50 51	49 42	48 33	47 25	46 16	45 08	44 00	42 53	
	10	55 45	54 37	53 27	52 19	51 10	50 03	48 54	47 47	46 39	45 32	44 25	43 19	42 12		10	55 45	54 37	53 27	52 19	51 10	50 03	48 54	47 47	46 39	45 32	44 25	43 19	
	20	55 56	54 49	53 42	52 33	51 26	50 19	49 12	48 05	46 58	45 52	44 46	43 40	42 34	5	20	55 56	54 49	53 42	52 33	51 26	50 19	49 12	48 05	46 58	45 52	44 46	43 40	
	30	56 04	54 57	53 51	52 44	51 37	50 31	49 25	48 19	47 13	46 07	45 02	43 57	42 50	6	30	56 04	54 57	53 51	52 44	51 37	50 31	49 25	48 19	47 13	46 07	45 02	43 57	
	40	56 07	55 02	53 57	52 51	51 45	50 40	49 34	48 29	47 24	46 19	45 14	44 09	43 04	7	40	56 07	55 02	53 57	52 51	51 45	50 40	49 34	48 29	47 24	46 19	45 14	44 09	
	50	56 08	55 03	53 58	52 54	51 49	50 45	49 39	48 35	47 31	46 26	45 22	44 18	43 13	8	50	56 08	55 03	53 58	52 54	51 49	50 45	49 39	48 35	47 31	46 26	45 22	44 18	
5	00	56 05	55 01	53 57	52 53	51 50	50 46	49 42	48 38	47 35	46 30	45 27	44 23	43 19	5	00	56 05	55 01	53 57	52 53	51 50	50 46	49 42	48 38	47 35	46 30	45 27	44 23	
	10	55 58	54 56	53 53	52 50	51 47	50 44	49 40	48 37	47 34	46 32	45 29	44 25	43 20		10	55 58	54 56	53 53	52 50	51 47	50 44	49 40	48 37	47 34	46 32	45 29	44 25	
	20	55 49	54 46	53 45	52 42	51 41	50 38	49 35	48 33	47 31	46 29	45 26	44 24	43 20	6	20	55 49	54 46	53 45	52 42	51 41	50 38	49 35	48 33	47 31	46 29	45 26	44 24	
	30	55 39	54 35	53 33	52 32	51 31	50 30	49 27	48 26	47 25	46 22	45 21	44 19	43 17	7	30	55 39	54 35	53 33	52 32	51 31	50 30	49 27	48 26	47 25	46 22	45 21	44 19	
	40	55 21	54 21	53 20	52 19	51 19	50 18	49 16	48 15	47 14	46 12	45 12	44 11	43 10	8	40	55 21	54 21	53 20	52 19	51 19	50 18	49 16	48 15	47 14	46 12	45 12	44 11	
	50	55 03	54 03	53 03	52 03	51 02	50 02	49 02	48 01	47 01	46 01	45 00	43 59	42 59	9	50	55 03	54 03	53 03	52 03	51 02	50 02	49 02	48 01	47 01	46 01	45 00	43 59	
6	00	54 42	53 43	52 43	51 43	50 44	49 44	48 44	47 45	46 44	45 44	44 45	43 45	42 45	6	00	54 42	53 43	52 43	51 43	50 44	49 44	48 44	47 45	46 44	45 44	44 45	43 45	
	10	54 18	53 20	52 20	51 22	50 22	49 23	48 24	47 24	46 25	45 26	44 26	43 26	42 26		10	54 18	53 20	52 20	51 22	50 22	49 23	48 24	47 24	46 25	45 26	44 26	43 26	
	20	53 52	52 54	51 54	50 56	49 57	48 59	48 00	47 02	46 03	45 03	44 05	43 05	42 05	7	20	53 52	52 54	51 54	50 56	49 57	48 59	48 00	47 02	46 03	45 03	44 05	43 05	
	30	53 22	52 24	51 26	50 28	49 30	48 31	47 34	46 35	45 37	44 39	43 41	42 42	41 43	8	30	53 22	52 24	51 26	50 28	49 30	48 31	47 34	46 35	45 37	44 39	43 41	42 42	
	40	52 49	51 52	50 54	49 56	48 59	48 02	47 03	46 06	45 08	44 10	43 13	42 15	41 17	9	40	52 49	51 52	50 54	49 56	48 59	48 02	47 03	46 06	45 08	44 10	43 13	42 15	
	50	52 14	51 16	50 19	49 23	48 25	47 28	46 31	45 34	44 37	43 39	42 42	41 45	40 47	10	50	52 14	51 16	50 19	49 23	48 25	47 28	46 31	45 34	44 37	43 3			

AZIMUTH OR TRUE BEARING.

LATITUDE 13°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 13°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		00
	10	2 55	2 47	2 40	2 33	2 26	2 21	2 14	2 08	2 03	1 58	1 53	1 47		10
	20	5 48	5 33	5 18	5 05	4 53	4 40	4 28	4 16	4 04	3 54	3 44	3 34		20
	30	8 38	8 16	7 55	7 35	7 16	6 57	6 39	6 22	6 06	5 50	5 34	5 20		30
	40	11 24	10 56	10 28	10 02	9 37	9 13	8 49	8 27	8 05	7 44	7 24	7 04		40
	50	14 05	13 30	12 57	12 24	11 54	11 24	10 55	10 28	10 01	9 35	9 11	8 47		50
1	00	16 40	15 59	15 20	14 43	14 07	13 31	12 58	12 25	11 54	11 25	10 55	10 27	1	00
	10	19 07	18 21	17 37	16 55	16 14	15 35	14 57	14 20	13 44	13 10	12 36	12 04		10
	20	21 26	20 37	19 48	19 02	18 17	17 33	16 50	16 09	15 30	14 52	14 15	13 38		20
	30	23 38	22 45	21 53	21 02	20 13	19 25	18 40	17 55	17 12	16 30	15 48	15 09		30
	40	25 42	24 44	23 49	22 55	22 03	21 13	20 23	19 35	18 49	18 03	17 19	16 36		40
	50	27 37	26 37	25 39	24 43	23 47	22 54	22 02	21 11	20 21	19 33	18 45	17 59		50
2	00	29 24	28 22	27 21	26 23	25 25	24 28	23 34	22 41	21 48	20 57	20 07	19 18	2	00
	10	31 03	29 59	28 57	27 55	26 56	25 58	25 01	24 06	23 11	22 18	21 25	20 34		10
	20	32 34	31 29	30 25	29 23	28 21	27 21	26 23	25 25	24 28	23 33	22 38	21 45		20
	30	33 58	32 52	31 46	30 43	29 40	28 39	27 38	26 39	25 40	24 43	23 47	22 52		30
	40	35 14	34 08	33 02	31 57	30 53	29 50	28 49	27 48	26 48	25 50	24 52	23 55		40
	50	36 24	35 16	34 09	33 04	31 59	30 56	29 54	28 52	27 51	26 51	25 52	24 53		50
3	00	37 27	36 20	35 13	34 06	33 01	31 56	30 53	29 51	28 49	27 48	26 47	25 48	3	00
	10	38 24	37 16	36 09	35 03	33 57	32 52	31 48	30 45	29 42	28 40	27 39	26 38		10
	20	39 16	38 08	37 00	35 53	34 48	33 43	32 38	31 34	30 31	29 29	28 27	27 25		20
	30	40 01	38 53	37 46	36 39	35 33	34 28	33 23	32 19	31 14	30 12	29 10	28 07		30
	40	40 41	39 33	38 27	37 20	36 13	35 08	34 03	32 59	31 55	30 51	29 48	28 46		40
	50	41 15	40 08	39 02	37 56	36 49	35 44	34 39	33 34	32 30	31 26	30 23	29 21		50
4	00	41 46	40 39	39 33	38 27	37 21	36 16	35 11	34 07	33 02	31 58	30 54	29 51	4	00
	10	42 12	41 06	40 00	38 54	37 48	36 43	35 38	34 33	33 29	32 25	31 22	30 18		10
	20	42 33	41 28	40 23	39 17	38 11	37 06	36 01	34 58	33 53	32 49	31 45	30 42		20
	30	42 50	41 45	40 40	39 35	38 30	37 26	36 22	35 17	34 13	33 10	32 06	31 03		30
	40	43 04	41 59	40 54	39 51	38 46	37 42	36 38	35 34	34 30	33 26	32 23	31 19		40
	50	43 14	42 10	41 05	40 02	38 57	37 54	36 50	35 47	34 43	33 39	32 35	31 32		50
5	00	43 20	42 16	41 13	40 09	39 06	38 01	36 58	35 55	34 52	33 49	32 46	31 43	5	00
	10	43 22	42 20	41 16	40 13	39 10	38 07	37 04	36 02	34 59	33 56	32 53	31 50		10
	20	43 21	42 19	41 16	40 14	39 11	38 09	37 07	36 04	35 01	33 58	32 57	31 54		20
	30	43 17	42 15	41 13	40 11	39 08	38 06	37 05	36 03	35 01	33 59	32 57	31 55		30
	40	43 09	42 09	41 07	40 05	39 03	38 02	37 01	35 59	34 58	33 56	32 54	31 53		40
	50	42 58	41 58	40 57	39 57	38 55	37 54	36 54	35 53	34 52	33 50	32 49	31 48		50
6	00	42 45	41 45	40 44	39 44	38 43	37 43	36 43	35 42	34 41	33 41	32 40	31 39	6	00
	10	42 28	41 28	40 29	39 28	38 28	37 28	36 29	35 29	34 29	33 30	32 29	31 28		10
	20	42 07	41 08	40 09	39 10	38 11	37 12	36 13	35 13	34 14	33 15	32 15	31 16		20
	30	41 44	40 46	39 47	38 49	37 50	36 52	35 53	34 54	33 56	32 57	31 58	31 00		30
	40	41 18	40 20	39 23	38 25	37 27	36 28	35 30	34 33	33 35	32 37	31 39	30 40		40
	50	40 48	39 52	38 54	37 57	36 59	36 02	35 05	34 08	33 10	32 14	31 16	30 19		50
7	00	40 15	39 19	38 23	37 27	36 30	35 33	34 37	33 41	32 44	31 48	30 51	29 54	7	00
	10	39 41	38 45	37 49	36 54	35 57	35 02	34 06	33 10	32 14	31 19	30 22	29 27		10
	20	39 02	38 07	37 12	36 17	35 22	34 27	33 32	32 37	31 42	30 47	29 52	28 57		20
	30	38 20	37 26	36 32	35 38	34 43	33 49	32 56	32 02	31 07	30 13	29 19	28 25		30
	40	37 35	36 42	35 49	34 55	34 02	33 08	32 15	31 22	30 29	29 36	28 43	27 50		40
	50	36 48	35 55	35 02	34 10	33 18	32 25	31 33	30 41	29 49	28 56	28 05	27 13		50
8	00	35 57	35 05	34 13	33 21	32 30	31 38	30 47	29 56	29 05	28 14	27 23	26 32	8	00
	10	35 02	34 12	33 21	32 30	31 39	30 49	29 59	29 09	28 19	27 29	26 39	25 50		10
	20	34 04	33 14	32 25	31 35	30 45	29 57	29 08	28 19	27 30	26 42	25 53	25 05		20
	30	33 03	32 15	31 26	30 38	29 49	29 02	28 14	27 26	26 39	25 51	25 04	24 17		30
	40	31 58	31 11	30 24	29 37	28 49	28 03	27 16	26 30	25 44	24 59	24 12	23 26		40
	50	30 51	30 05	29 19	28 33	27 47	27 02	26 17	25 32	24 48	24 03	23 19	22 34		50
9	00	29 40	28 55	28 10	27 26	26 41	25 58	25 14	24 31	23 48	23 04	22 22	21 39	9	00
	10	28 25	27 42	26 59	26 16	25 33	24 51	24 09	23 28	22 45	22 04	21 23	20 42		10
	20	27 08	26 26	25 44	25 03	24 22	23 41	23 00	22 21	21 41	21 01	20 21	19 43		20
	30	25 47	25 06	24 26	23 47	23 07	22 29	21 50	21 12	20 34	19 56	19 18	18 41		30
	40	24 21	23 44	23 05	22 28	21 50	21 13	20 36	20 00	19 24	18 48	18 12	17 38		40
	50	22 53	22 18	21 41	21 06	20 30	19 55	19 20	18 46	18 12	17 38	17 05	16 31		50
10	00	21 23	20 49	20 14	19 41	19 08	18 35	18 02	17 30	16 58	16 26	15 54	15 24	10	00
	10	19 48	19 17	18 45	18 13	17 42	17 11	16 41	16 11	15 41	15 12	14 42	14 14		10
	20	18 12	17 42	17 12	16 43	16 14	15 46	15 18	14 51	14 23	13 56	13 29	13 02		20
	30	16 32	16 04	15 37	15 11	14 44	14 19	13 52	13 27	13 03	12 38	12 14	11 49		30
	40	14 49	14 24	14 00	13 36	13 11	12 48	12 26	12 03	11 40	11 18	10 56	10 34		40
	50	13 04	12 41	12 20	11 58	11 38	11 16	10 56	10 37	10 16	9 56	9 37	9 18		50
11	00	11 16	10 57	10 38	10 19	10 01	9 44	9 26	9 09	8 51	8 34	8 18	8 01	11	00
	10	9 27	9 10	8 55	8 40	8 24	8 09	7 54	7 39	7 25	7 10	6 56	6 42		10
	20	7 35	7 23	7 09	6 57	6 45	6 32	6 21	6 09	5 57	5 46	5 34	5 23		20
	30	5 42	5 33	5 23	5 14	5 05	4 55	4 46	4 38	4 29	4 20	4 11	4 03		30
	40	3 49	3 43	3 36	3 29	3 24	3 17	3 11	3 05	2 59	2 53	2 47	2 42		40
	50	1 55	1 52	1 48	1 45	1 42	1 38	1 35	1 33	1 30	1 27	1 24	1 21		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 13°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 13°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.
h.	m.	o	o	o	o	o	o	o	o	o	o	o	h.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0
	10	1 42	1 38	1 33	1 29	1 24	1 20	1 17	1 13	1 09	1 05	1 01	10
	20	3 25	3 15	3 07	2 57	2 49	2 41	2 32	2 25	2 17	2 10	2 02	20
	30	5 06	4 52	4 38	4 25	4 13	4 00	3 48	3 37	3 25	3 14	3 02	30
	40	6 45	6 27	6 09	5 52	5 35	5 19	5 02	4 47	4 32	4 17	4 03	40
	50	8 23	8 00	7 39	7 18	6 57	6 36	6 16	5 57	5 38	5 20	5 02	50
1	00	9 59	9 33	9 06	8 40	8 16	7 52	7 29	7 06	6 44	6 22	6 00	1
	10	11 32	11 02	10 32	10 03	9 34	9 07	8 39	8 14	7 47	7 23	6 58	10
	20	13 02	12 28	11 55	11 22	10 50	10 20	9 49	9 19	8 50	8 22	7 54	20
	30	14 30	13 52	13 15	12 39	12 04	11 30	10 56	10 24	9 51	9 20	8 48	30
	40	15 54	15 12	14 33	13 54	13 15	12 39	12 02	11 26	10 50	10 16	9 42	40
	50	17 14	16 30	15 47	15 06	14 24	13 44	13 04	12 25	11 48	11 10	10 34	50
2	00	18 31	17 44	16 59	16 14	15 30	14 47	14 05	13 23	12 43	12 03	11 24	2
	10	19 44	18 55	18 07	17 19	16 33	15 48	15 03	14 19	13 35	12 53	12 11	10
	20	20 53	20 02	19 11	18 22	17 33	16 45	15 58	15 12	14 26	13 42	12 58	20
	30	21 58	21 05	20 12	19 21	18 29	17 40	16 51	16 02	15 15	14 28	13 42	30
	40	22 59	22 04	21 10	20 17	19 24	18 32	17 42	16 51	16 01	15 12	14 23	40
	50	23 57	23 00	22 04	21 09	20 14	19 21	18 28	17 37	16 44	15 54	15 03	50
3	00	24 50	23 51	22 55	21 58	21 03	20 08	19 13	18 19	17 26	16 34	15 41	3
	10	25 39	24 40	23 42	22 44	21 47	20 51	19 54	18 59	18 05	17 11	16 17	10
	20	26 24	25 24	24 25	23 26	22 27	21 30	20 33	19 36	18 40	17 44	16 50	20
	30	27 06	26 05	25 04	24 05	23 05	22 07	21 09	20 11	19 14	18 18	17 21	30
	40	27 43	26 42	25 41	24 41	23 40	22 40	21 42	20 43	19 44	18 47	17 49	40
	50	28 18	27 16	26 14	25 13	24 12	23 12	22 12	21 12	20 13	19 14	18 16	50
4	00	28 48	27 46	26 44	25 42	24 41	23 40	22 39	21 38	20 38	19 39	18 40	4
	10	29 15	28 12	27 10	26 08	25 05	24 05	23 03	22 02	21 02	20 02	19 02	10
	20	29 39	28 36	27 33	26 30	25 28	24 27	23 24	22 23	21 22	20 21	19 20	20
	30	29 59	28 55	27 53	26 50	25 48	24 46	23 44	22 42	21 40	20 39	19 38	30
	40	30 16	29 12	28 10	27 07	26 04	25 02	24 00	22 58	21 56	20 54	19 52	40
	50	30 29	29 26	28 24	27 21	26 18	25 16	24 13	23 11	22 09	21 06	20 05	50
5	00	30 39	29 37	28 35	27 31	26 29	25 26	24 24	23 22	22 19	21 17	20 15	5
	10	30 47	29 44	28 42	27 39	26 36	25 34	24 32	23 30	22 27	21 25	20 22	10
	20	30 52	29 49	28 47	27 44	26 42	25 39	24 38	23 35	22 32	21 31	20 28	20
	30	30 52	29 50	28 48	27 46	26 44	25 42	24 40	23 38	22 36	21 34	20 31	30
	40	30 51	29 49	28 47	27 46	26 44	25 42	24 40	23 39	22 37	21 35	20 33	40
	50	30 46	29 45	28 44	27 42	26 41	25 39	24 38	23 36	22 35	21 34	20 32	50
6	00	30 39	29 38	28 37	27 37	26 36	25 35	24 34	23 33	22 31	21 30	20 29	6
	10	30 29	29 29	28 28	27 28	26 28	25 27	24 26	23 26	22 25	21 25	20 23	10
	20	30 16	29 15	28 16	27 17	26 17	25 17	24 17	23 17	22 17	21 17	20 16	20
	30	30 00	29 01	28 03	27 04	26 04	25 05	24 06	23 07	22 07	21 07	20 07	30
	40	29 42	28 44	27 45	26 47	25 48	24 49	23 51	22 53	21 54	20 54	19 55	40
	50	29 21	28 23	27 26	26 29	25 31	24 33	23 34	22 37	21 39	20 40	19 42	50
7	00	28 58	28 00	27 04	26 07	25 10	24 13	23 16	22 19	21 22	20 24	19 27	7
	10	28 31	27 34	26 39	25 43	24 47	23 51	22 55	21 59	21 02	20 06	19 09	10
	20	28 02	27 06	26 12	25 17	24 22	23 27	22 32	21 36	20 41	19 46	18 51	20
	30	27 31	26 36	25 43	24 49	23 55	23 01	22 07	21 12	20 18	19 24	18 29	30
	40	26 57	26 03	25 11	24 18	23 25	22 32	21 39	20 46	19 53	19 00	18 07	40
	50	26 21	25 28	24 37	23 45	22 53	22 01	21 10	20 17	19 25	18 33	17 42	50
8	00	25 41	24 50	24 01	23 10	22 17	21 28	20 37	19 47	18 56	18 06	17 14	8
	10	25 00	24 10	23 22	22 32	21 42	20 53	20 04	19 14	18 25	17 36	16 46	10
	20	24 16	23 28	22 40	21 52	21 04	20 16	19 28	18 40	17 52	17 04	16 16	20
	30	23 30	22 43	21 57	21 10	20 23	19 37	18 50	18 04	17 18	16 31	15 44	30
	40	22 41	21 56	21 11	20 26	19 41	18 56	18 11	17 26	16 41	15 56	15 11	40
	50	21 50	21 06	20 23	19 39	18 56	18 13	17 29	16 46	16 02	15 20	14 36	50
9	00	20 57	20 14	19 33	18 52	18 09	17 27	16 46	16 05	15 23	14 41	14 00	9
	10	20 02	19 21	18 41	18 01	17 20	16 41	16 01	15 21	14 41	14 02	13 22	10
	20	19 04	18 24	17 47	17 08	16 31	15 52	15 14	14 36	13 58	13 21	12 43	20
	30	18 04	17 27	16 50	16 14	15 38	15 02	14 26	13 50	13 14	12 38	12 02	30
	40	17 02	16 27	15 53	15 18	14 44	14 09	13 35	13 01	12 28	11 54	11 20	40
	50	15 58	15 25	14 53	14 21	13 48	13 16	12 44	12 12	11 40	11 08	10 37	50
10	00	14 53	14 22	13 52	13 21	12 51	12 21	11 51	11 22	10 51	10 22	9 53	10
	10	13 45	13 16	12 48	12 20	11 52	11 25	10 57	10 29	10 02	9 35	9 07	10
	20	12 35	12 09	11 43	11 18	10 52	10 26	10 02	9 36	9 11	8 46	8 21	20
	30	11 25	11 01	10 38	10 13	9 51	9 28	9 04	8 42	8 19	7 56	7 34	30
	40	10 12	9 51	9 30	9 09	8 49	8 27	8 07	7 46	7 25	7 05	6 45	40
	50	8 59	8 40	8 21	8 03	7 45	7 26	7 08	6 50	6 32	6 14	5 56	50
11	00	7 44	7 28	7 12	6 56	6 39	6 24	6 09	5 52	5 38	5 22	5 06	11
	10	6 28	6 14	6 01	5 48	5 34	5 21	5 09	4 55	4 42	4 29	4 17	10
	20	5 12	5 01	4 50	4 40	4 29	4 16	4 06	3 56	3 46	3 36	3 26	20
	30	3 54	3 46	3 38	3 30	3 22	3 14	3 06	2 58	2 50	2 42	2 34	30
	40	2 37	2 31	2 26	2 20	2 14	2 09	2 04	1 59	1 54	1 49	1 43	40
	50	1 18	1 16	1 13	1 10	1 07	1 04	1 02	0 59	0 57	0 54	0 51	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 14°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 14°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	12 54	11 42	10 40	9 48	8 22	7 48	7 17	6 49	6 25	6 02	5 41	5 21		10
	20	24 32	22 24	20 34	18 59	17 36	16 22	15 16	14 18	13 26	12 37	11 54	11 15		20
	30	34 11	31 32	29 14	27 09	25 19	23 40	22 10	20 49	19 36	18 30	17 28	16 32		30
	40	41 53	39 02	36 28	34 08	32 01	30 06	28 20	26 44	25 16	23 54	22 39	21 29		40
	50	47 52	45 01	42 24	39 58	37 44	35 40	33 45	31 58	30 19	28 47	27 22	26 01		50
1	00	52 32	49 47	47 12	44 48	42 32	40 24	38 24	36 32	34 47	33 08	31 35	30 08	1	00
	10	56 12	53 36	51 07	48 46	46 31	44 24	42 23	40 30	38 44	36 58	35 22	33 50		10
	20	59 06	56 39	54 17	52 01	49 50	47 46	45 46	43 53	42 04	40 20	38 41	37 07		20
	30	61 25	59 06	56 52	54 42	52 38	50 37	48 40	46 48	44 50	43 16	41 36	40 01		30
	40	63 17	61 07	59 00	56 56	54 56	53 00	51 06	49 17	47 31	45 49	44 09	42 35		40
	50	64 47	62 45	60 44	58 47	56 52	55 00	53 11	51 25	49 41	48 01	46 23	44 49		50
2	00	66 01	64 05	62 11	60 19	58 30	56 43	54 58	53 15	51 34	49 56	48 20	46 47	2	00
	10	67 01	65 11	63 23	61 37	59 53	58 09	56 27	54 48	53 01	51 35	50 01	48 30		10
	20	67 49	66 05	64 23	62 42	61 01	59 22	57 44	56 09	54 34	53 01	51 30	50 01		20
	30	68 29	66 49	65 11	63 35	61 59	60 24	58 50	57 17	55 45	54 15	52 46	51 19		30
	40	69 00	67 25	65 52	64 19	62 47	61 15	59 44	58 15	56 46	55 19	53 52	52 27		40
	50	69 25	67 55	66 25	64 56	63 28	61 59	60 32	59 05	57 39	56 14	54 50	53 26		50
3	00	69 44	68 18	66 52	65 26	64 00	62 35	61 11	59 47	58 24	57 01	55 39	54 18	3	00
	10	69 59	68 35	67 13	65 50	64 27	63 05	61 43	60 21	59 00	57 40	56 20	55 01		10
	20	70 09	68 49	67 28	66 08	64 49	63 28	62 09	60 50	59 32	58 13	56 55	55 38		20
	30	70 16	68 58	67 39	66 22	65 05	63 47	62 30	61 14	59 57	58 40	57 24	56 09		30
	40	70 19	69 03	67 47	66 32	65 16	64 01	62 47	61 32	60 17	59 03	57 48	56 34		40
	50	70 18	69 04	67 51	66 38	65 25	64 11	62 59	61 46	60 32	59 20	58 07	56 55		50
4	00	70 15	69 04	67 52	66 41	65 30	64 18	63 07	61 56	60 44	59 33	58 21	57 11	4	00
	10	70 09	68 59	67 50	66 40	65 30	64 20	63 10	62 01	60 51	59 42	58 32	57 23		10
	20	70 00	68 52	67 44	66 36	65 28	64 10	63 12	62 03	60 55	59 47	58 39	57 31		20
	30	69 50	68 43	67 36	66 30	65 23	64 17	63 09	62 02	60 50	59 49	58 41	57 35		30
	40	69 37	68 31	67 26	66 20	65 15	64 09	63 04	61 59	60 52	59 47	58 41	57 35		40
	50	69 22	68 17	67 13	66 09	65 05	64 00	62 56	61 51	60 46	59 42	58 37	57 32		50
5	00	69 04	68 01	66 58	65 55	64 52	63 48	62 45	61 41	60 38	59 34	58 30	57 26	5	00
	10	68 45	67 43	66 41	65 38	64 37	63 34	62 31	61 29	60 26	59 23	58 20	57 17		10
	20	68 24	67 22	66 21	65 20	64 18	63 16	62 14	61 13	60 11	59 10	58 08	57 06		20
	30	68 00	67 00	66 00	65 00	64 00	63 00	62 00	61 00	60 00	59 00	58 00	57 00		30
	40	67 35	66 35	65 35	64 35	63 35	62 35	61 35	60 35	59 34	58 33	57 33	56 32		40
	50	67 08	66 08	65 09	64 09	63 10	62 11	61 11	60 12	59 11	58 12	57 12	56 12		50
6	00	66 38	65 40	64 40	63 41	62 43	61 44	60 45	59 46	58 46	57 47	56 48	55 49	6	00
	10	66 06	65 08	64 09	63 11	62 13	61 14	60 15	59 17	58 19	57 20	56 21	55 23		10
	20	65 32	64 35	63 37	62 39	61 41	60 42	59 44	58 46	57 48	56 50	55 52	54 53		20
	30	64 57	64 00	63 01	62 03	61 05	60 08	59 10	58 12	57 14	56 17	55 19	54 21		30
	40	64 18	63 20	62 23	61 26	60 28	59 30	58 33	57 36	56 39	55 41	54 44	53 47		40
	50	63 37	62 39	61 42	60 46	59 48	58 51	57 54	56 57	56 00	55 03	54 05	53 09		50
7	00	62 53	61 56	60 58	60 02	59 05	58 08	57 12	56 15	55 18	54 21	53 25	52 29	7	00
	10	62 06	61 09	60 12	59 15	58 19	57 23	56 26	55 30	54 33	53 37	52 41	51 45		10
	20	61 17	60 20	59 23	58 27	57 31	56 33	55 37	54 42	53 45	52 49	51 53	50 57		20
	30	60 25	59 28	58 31	57 34	56 38	55 42	54 45	53 50	52 55	51 59	51 03	50 08		30
	40	59 29	58 32	57 35	56 39	55 43	54 46	53 50	52 55	51 59	51 04	50 09	49 14		40
	50	58 30	57 33	56 35	55 39	54 43	53 47	52 52	51 56	51 01	50 06	49 11	48 16		50
8	00	57 26	56 29	55 33	54 37	53 40	52 44	51 49	50 53	49 59	49 04	48 09	47 15	8	00
	10	56 19	55 22	54 25	53 29	52 33	51 38	50 43	49 48	48 52	47 59	47 05	46 11		10
	20	55 08	54 11	53 14	52 18	51 23	50 27	49 32	48 37	47 43	46 49	45 55	45 03		20
	30	53 52	52 55	51 58	51 02	50 07	49 12	48 17	47 22	46 29	45 35	44 43	43 50		30
	40	52 31	51 34	50 37	49 41	48 46	47 51	46 57	46 03	45 10	44 17	43 24	42 33		40
	50	51 05	50 07	49 11	48 15	47 21	46 26	45 32	44 39	43 46	42 53	42 02	41 11		50
9	00	49 33	48 36	47 40	46 44	45 50	44 56	44 03	43 10	42 17	41 26	40 35	39 45	9	00
	10	47 54	46 58	46 01	45 08	44 14	43 20	42 27	41 35	40 43	39 53	39 03	38 14		10
	20	46 10	45 14	44 18	43 24	42 31	41 38	40 46	39 55	39 05	38 15	37 26	36 38		20
	30	44 17	43 22	42 27	41 34	40 42	39 50	38 59	38 09	37 20	36 31	35 43	34 57		30
	40	42 18	41 24	40 30	39 38	38 47	37 56	37 06	36 18	35 29	34 42	33 56	33 10		40
	50	40 13	39 18	38 26	37 34	36 44	35 55	35 07	34 20	33 33	32 47	32 03	31 19		50
10	00	37 56	37 04	36 13	35 24	34 35	33 47	33 01	32 15	31 31	30 46	30 04	29 22	10	00
	10	35 31	34 41	33 52	33 04	32 18	31 32	30 48	30 04	29 21	28 40	27 59	27 19		10
	20	32 59	32 10	31 23	30 38	29 54	29 10	28 29	27 47	27 07	26 27	25 49	25 11		20
	30	30 17	29 31	28 47	28 03	27 22	26 41	26 01	25 24	24 45	24 09	23 33	22 58		30
	40	27 24	26 43	26 01	25 22	24 43	24 05	23 28	22 53	22 18	21 45	21 12	20 40		40
	50	24 24	23 45	23 08	22 32	21 57	21 22	20 50	20 17	19 46	19 16	18 47	18 17		50
11	00	21 14	20 40	20 07	19 34	19 03	18 33	18 03	17 35	17 08	16 42	16 15	15 49	11	00
	10	17 57	17 27	16 58	16 30	16 04	15 37	15 12	14 48	14 24	14 01	13 39	13 19		10
	20	14 31	14 06	13 43	13 21	12 58	12 37	12 16	11 57	11 37	11 19	11 01	10 43		20
	30	10 59	10 41	10 22	10 05	9 48	9 31	9 16	8 59	8 45	8 31	8 18	8 05		30
	40	7 23	7 10	6 57	6 46	6 34	6 23	6 12	6 02	5 52	5 43	5 33	5 25		40
	50	3 42	3 35	3 30	3 24	3 18	3 12	3 07	3 02	2 56	2 51	2 47	2 43		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 14°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 14°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	5 23	5 05	4 49	4 35	4 21	4 08	3 57	3 46	3 35	3 26	3 16	3 07		10
	20	10 38	10 05	9 34	9 05	8 39	8 14	7 50	7 29	7 09	6 49	6 31	6 14		20
	30	15 41	14 53	14 08	13 27	12 48	12 12	11 38	11 06	10 36	10 08	9 41	9 16		30
	40	20 25	19 24	18 28	17 36	16 47	16 00	15 17	14 36	13 57	13 20	12 46	12 13		40
	50	24 47	23 37	22 31	21 30	20 32	19 37	18 45	17 57	17 10	16 26	15 43	15 04		50
1	00	28 46	27 29	26 16	25 07	24 01	22 59	22 01	21 05	20 12	19 21	18 33	17 47	1	00
	10	32 23	31 00	29 41	28 28	27 16	26 08	25 03	24 03	23 04	22 07	21 13	20 22		10
	20	35 37	34 10	32 48	31 30	30 14	29 02	27 53	26 47	25 44	24 43	23 45	22 49		20
	30	38 29	37 00	35 36	34 15	32 56	31 41	30 29	29 19	28 12	27 08	26 05	25 06		30
	40	41 02	39 32	38 07	36 44	35 23	34 06	32 52	31 39	30 29	29 22	28 17	27 14		40
	50	43 16	41 47	40 21	38 57	37 36	36 17	35 01	33 46	32 35	31 25	30 18	29 12		50
2	00	45 16	43 47	42 21	40 57	39 35	38 16	36 59	35 43	34 30	33 19	32 10	31 03	2	00
	10	47 02	45 33	44 04	42 44	41 22	40 02	38 44	37 28	36 15	35 03	33 52	32 43		10
	20	48 32	47 06	45 41	44 19	42 57	41 38	40 20	39 04	37 49	36 37	35 25	34 15		20
	30	49 53	48 28	47 05	45 43	44 23	43 04	41 46	40 30	39 15	38 02	36 50	35 40		30
	40	51 03	49 40	48 18	46 57	45 37	44 20	43 03	41 47	40 32	39 19	38 07	36 56		40
	50	52 04	50 42	49 22	48 02	46 44	45 27	44 11	42 55	41 41	40 28	39 16	38 05		50
3	00	52 56	51 37	50 18	49 00	47 43	46 26	45 11	43 57	42 43	41 30	40 18	39 07	3	00
	10	53 42	52 24	51 07	49 50	48 34	47 19	46 04	44 51	43 38	42 26	41 13	40 03		10
	20	54 21	53 04	51 49	50 33	49 19	48 05	46 51	45 38	44 25	43 14	42 03	40 53		20
	30	54 54	53 38	52 24	51 11	49 57	48 44	47 31	46 19	45 08	43 57	42 47	41 36		30
	40	55 21	54 07	52 55	51 42	50 30	49 18	48 06	46 55	45 44	44 34	43 25	42 15		40
	50	55 43	54 31	53 19	52 08	50 57	49 46	48 36	47 25	46 15	45 06	43 57	42 48		50
4	00	56 00	54 50	53 40	52 29	51 20	50 09	49 00	47 51	46 42	45 34	44 25	43 17	4	00
	10	56 13	55 04	53 55	52 46	51 38	50 28	49 20	48 12	47 03	45 56	44 49	43 41		10
	20	56 23	55 15	54 07	52 59	51 51	50 43	49 36	48 28	47 21	46 14	45 07	44 01		20
	30	56 28	55 20	54 14	53 07	52 00	50 54	49 47	48 40	47 34	46 28	45 22	44 16		30
	40	56 29	55 23	54 18	53 12	52 06	51 00	49 55	48 48	47 43	46 38	45 32	44 27		40
	50	56 28	55 23	54 18	53 14	52 08	51 03	49 58	48 54	47 49	46 45	45 39	44 35		50
5	00	56 23	55 18	54 14	53 11	52 07	51 03	49 59	48 55	47 51	46 47	45 42	44 38	5	00
	10	56 14	55 12	54 08	53 05	52 02	50 59	49 56	48 52	47 49	46 46	45 42	44 39		10
	20	56 03	55 01	53 58	52 56	51 54	50 51	49 49	48 47	47 44	46 42	45 39	44 36		20
	30	55 49	54 48	53 46	52 45	51 42	50 41	49 39	48 37	47 35	46 34	45 32	44 30		30
	40	55 32	54 31	53 30	52 30	51 29	50 28	49 26	48 25	47 24	46 23	45 22	44 20		40
	50	55 12	54 12	53 12	52 12	51 11	50 10	49 10	48 09	47 09	46 09	45 08	44 08		50
6	00	54 49	53 50	52 51	51 50	50 51	49 51	48 52	47 52	46 52	45 52	44 52	43 51	6	00
	10	54 23	53 25	52 26	51 27	50 28	49 29	48 29	47 30	46 31	45 31	44 32	43 32		10
	20	53 55	52 56	51 58	51 00	50 01	49 02	48 04	47 05	46 07	45 08	44 09	43 10		20
	30	53 23	52 25	51 28	50 31	49 32	48 33	47 36	46 38	45 40	44 42	43 43	42 46		30
	40	52 49	51 52	50 55	49 58	49 00	48 03	47 05	46 07	45 10	44 13	43 15	42 17		40
	50	52 12	51 15	50 18	49 22	48 25	47 27	46 31	45 34	44 37	43 40	42 43	41 46		50
7	00	51 31	50 35	49 39	48 43	47 46	46 50	45 53	44 57	44 00	43 05	42 09	41 12	7	00
	10	50 49	49 52	48 56	48 01	47 05	46 09	45 13	44 17	43 22	42 27	41 30	40 35		10
	20	50 02	49 06	48 11	47 16	46 21	45 24	44 29	43 34	42 40	41 44	40 49	39 56		20
	30	49 12	48 16	47 22	46 27	45 32	44 37	43 43	42 48	41 54	41 00	40 06	39 12		30
	40	48 19	47 24	46 30	45 35	44 41	43 47	42 53	41 59	41 05	40 12	39 18	38 24		40
	50	47 22	46 28	45 34	44 40	43 46	42 52	41 59	41 06	40 13	39 21	38 28	37 35		50
8	00	46 21	45 28	44 35	43 41	42 48	41 55	41 03	40 10	39 17	38 26	37 34	36 43	8	00
	10	45 18	44 25	43 32	42 40	41 47	40 55	40 03	39 11	38 20	37 28	36 37	35 46		10
	20	44 10	43 16	42 25	41 32	40 41	39 50	38 59	38 08	37 18	36 27	35 37	34 47		20
	30	42 57	42 05	41 14	40 23	39 32	38 41	37 51	37 01	36 12	35 22	34 33	33 44		30
	40	41 41	40 49	39 59	39 09	38 19	37 29	36 40	35 51	35 02	34 14	33 25	32 39		40
	50	40 20	39 30	38 40	37 51	37 02	36 13	35 24	34 36	33 49	33 02	32 16	31 29		50
9	00	38 55	38 05	37 17	36 28	35 40	34 53	34 05	33 18	32 33	31 47	31 01	30 16	9	00
	10	37 24	36 36	35 49	35 02	34 15	33 28	32 42	31 57	31 12	30 27	29 44	29 00		10
	20	35 50	35 03	34 16	33 30	32 45	32 00	31 15	30 32	29 48	29 05	28 23	27 41		20
	30	34 10	33 25	32 40	31 54	31 11	30 27	29 44	29 02	28 20	27 39	26 58	26 17		30
	40	32 25	31 41	30 58	30 14	29 32	28 50	28 09	27 28	26 48	26 09	25 29	24 50		40
	50	30 35	29 53	29 11	28 30	27 49	27 09	26 30	25 51	25 12	24 35	23 58	23 21		50
10	00	28 40	28 00	27 20	26 41	26 02	25 24	24 47	24 10	23 34	22 58	22 23	21 48	10	00
	10	26 40	26 01	25 24	24 47	24 10	23 35	23 00	22 25	21 51	21 17	20 44	20 11		10
	20	24 35	23 59	23 23	22 49	22 15	21 42	21 08	20 36	20 05	19 33	19 03	18 32		20
	30	22 24	21 51	21 18	20 46	20 14	19 44	19 14	18 44	18 15	17 46	17 19	16 51		30
	40	20 08	19 38	19 09	18 40	18 11	17 43	17 15	16 48	16 22	15 56	15 30	15 05		40
	50	17 49	17 21	16 55	16 29	16 03	15 38	15 14	14 49	14 27	14 04	13 41	12 19		50
11	00	15 25	15 01	14 37	14 15	13 53	13 31	13 09	12 48	12 28	12 08	11 48	11 29	11	00
	10	12 57	12 37	12 17	11 59	11 39	11 20	11 02	10 45	10 27	10 10	9 53	9 37		10
	20	10 26	10 10	9 53	9 37	9 22	9 07	8 53	8 38	8 24	8 11	7 57	7 44		20
	30	7 52	7 39	7 27	7 16	7 03	6 52	6 41	6 30	6 19	6 10	5 59	5 49		30
	40	5 15	5 08	4 59	4 51	4 43	4 35	4 28	4 21	4 14	4 07	4 00	3 54		40
	50	2 38	2 34	2 30	2 26	2 22	2 18	2 14	2 11	2 07	2 04	2 00	1 57		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 14°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 14°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	3 00	2 51	2 44	2 37	2 30	2 23	2 17	2 11	2 05	2 00	1 54	1 50	0	10
0	20	5 57	5 42	5 26	5 12	4 59	4 45	4 33	4 21	4 10	3 58	3 48	3 37	0	20
0	30	8 52	8 29	8 07	7 45	7 25	7 06	6 48	6 30	6 13	5 56	5 40	5 25	0	30
0	40	11 41	11 11	10 43	10 15	9 49	9 24	8 59	8 36	8 14	7 52	7 32	7 12	0	40
0	50	14 25	13 49	13 14	12 41	12 09	11 38	11 08	10 40	10 12	9 45	9 20	8 55	0	50
1	00	17 03	16 20	15 40	15 01	14 24	13 48	13 13	12 40	12 08	11 36	11 06	10 37	1	00
1	10	19 33	18 46	18 00	17 16	16 34	15 53	15 14	14 36	13 59	13 23	12 49	12 15	1	10
1	20	21 55	21 03	20 12	19 25	18 38	17 52	17 09	16 27	15 46	15 06	14 28	13 51	1	20
1	30	24 08	23 13	22 19	21 26	20 36	19 46	18 59	18 13	17 29	16 45	16 04	15 23	1	30
1	40	26 13	25 14	24 16	23 20	22 27	21 35	20 44	19 55	19 08	18 21	17 35	16 52	1	40
1	50	28 09	27 07	26 07	25 09	24 13	23 17	22 23	21 31	20 40	19 50	19 02	18 15	1	50
2	00	29 57	28 53	27 50	26 50	25 51	24 53	23 56	23 02	22 09	21 16	20 26	19 36	2	00
2	10	31 36	30 31	29 26	28 23	27 23	26 23	25 24	24 27	23 32	22 37	21 43	20 51	2	10
2	20	33 07	32 00	30 54	29 50	28 47	27 45	26 45	25 46	24 49	23 52	22 57	22 02	2	20
2	30	34 30	33 23	32 15	31 10	30 06	29 03	28 02	27 01	26 02	25 03	24 06	23 10	2	30
2	40	35 47	34 38	33 30	32 24	31 20	30 15	29 12	28 10	27 10	26 09	25 10	24 13	2	40
2	50	36 55	35 46	34 38	33 32	32 26	31 20	30 16	29 14	28 12	27 10	26 10	25 12	2	50
3	00	37 58	36 48	35 39	34 33	33 27	32 21	31 16	30 12	29 09	28 07	27 06	26 06	3	00
3	10	38 54	37 45	36 35	35 28	34 22	33 17	32 11	31 06	30 02	29 00	27 58	26 56	3	10
3	20	39 43	38 34	37 26	36 18	35 12	34 05	32 59	31 55	30 51	29 47	28 44	27 42	3	20
3	30	40 28	39 19	38 10	37 02	35 56	34 50	33 44	32 39	31 35	30 30	29 26	28 24	3	30
3	40	41 06	39 58	38 49	37 42	36 36	35 30	34 24	33 19	32 14	31 09	30 05	29 02	3	40
3	50	41 40	40 32	39 24	38 17	37 11	36 04	34 59	33 54	32 48	31 44	30 39	29 36	3	50
4	00	42 10	41 02	39 54	38 47	37 41	36 35	35 29	34 24	33 19	32 14	31 10	30 07	4	00
4	10	42 34	41 27	40 20	39 14	38 08	37 01	35 56	34 51	33 46	32 41	31 36	30 32	4	10
4	20	42 54	41 47	40 41	39 35	38 30	37 23	36 18	35 14	34 10	33 04	32 00	30 56	4	20
4	30	43 11	42 05	40 59	39 53	38 48	37 42	36 37	35 33	34 28	33 24	32 20	31 15	4	30
4	40	43 22	42 17	41 11	40 07	39 02	37 57	36 52	35 48	34 44	33 40	32 35	31 31	4	40
4	50	43 30	42 26	41 21	40 17	39 12	38 08	37 04	36 00	34 56	33 52	32 48	31 44	4	50
5	00	43 35	42 31	41 27	40 23	39 19	38 15	37 11	36 09	35 05	34 01	32 58	31 53	5	00
5	10	43 37	42 33	41 29	40 26	39 22	38 19	37 16	36 13	35 10	34 06	33 03	32 00	5	10
5	20	43 34	42 31	41 28	40 26	39 23	38 20	37 17	36 15	35 12	34 09	33 07	32 03	5	20
5	30	43 28	42 26	41 23	40 22	39 20	38 17	37 14	36 13	35 10	34 08	33 06	32 04	5	30
5	40	43 19	42 17	41 16	40 15	39 13	38 11	37 10	36 07	35 06	34 04	33 03	32 00	5	40
5	50	43 07	42 07	41 05	40 04	39 04	38 02	37 01	36 00	34 59	33 58	32 56	31 55	5	50
6	00	42 52	41 52	40 51	39 51	38 51	37 50	36 50	35 49	34 48	33 48	32 47	31 46	6	00
6	10	42 33	41 34	40 34	39 35	38 35	37 35	36 35	35 35	34 35	33 35	32 35	31 34	6	10
6	20	42 13	41 14	40 14	39 15	38 16	37 16	36 17	35 18	34 19	33 20	32 20	31 21	6	20
6	30	41 48	40 49	39 51	38 52	37 54	36 55	35 57	34 59	34 00	33 01	32 03	31 04	6	30
6	40	41 20	40 22	39 25	38 27	37 30	36 31	35 33	34 36	33 38	32 39	31 42	30 44	6	40
6	50	40 50	39 53	38 56	37 59	37 02	36 04	35 08	34 10	33 13	32 16	31 19	30 21	6	50
7	00	40 16	39 20	38 24	37 28	36 32	35 34	34 38	33 42	32 46	31 50	30 53	29 56	7	00
7	10	39 40	38 44	37 48	36 53	35 58	35 02	34 06	33 11	32 15	31 20	30 24	29 29	7	10
7	20	39 00	38 05	37 10	36 15	35 21	34 26	33 31	32 37	31 42	30 47	29 53	28 58	7	20
7	30	38 18	37 24	36 30	35 35	34 42	33 47	32 54	32 00	31 06	30 12	29 19	28 25	7	30
7	40	37 33	36 38	35 46	34 52	34 00	33 07	32 14	31 21	30 29	29 35	28 43	27 50	7	40
7	50	36 43	35 50	34 59	34 06	33 15	32 22	31 31	30 38	29 47	28 55	28 03	27 11	7	50
8	00	35 51	35 00	34 08	33 17	32 26	31 34	30 44	29 53	29 03	28 12	27 22	26 31	8	00
8	10	34 56	34 05	33 15	32 25	31 36	30 45	29 55	29 06	28 16	27 27	26 38	25 48	8	10
8	20	33 58	33 08	32 18	31 30	30 42	29 52	29 04	28 16	27 27	26 39	25 51	25 02	8	20
8	30	32 56	32 07	31 20	30 31	29 44	28 56	28 09	27 22	26 35	25 48	25 01	24 14	8	30
8	40	31 51	31 04	30 17	29 31	28 44	27 58	27 12	26 27	25 40	24 55	24 10	23 24	8	40
8	50	30 43	29 57	29 11	28 26	27 41	26 57	26 12	25 28	24 43	23 59	23 15	22 31	8	50
9	00	29 30	28 46	28 03	27 19	26 35	25 51	25 08	24 25	23 42	23 00	22 19	21 36	9	00
9	10	28 17	27 34	26 51	26 09	25 27	24 44	24 03	23 22	22 41	21 59	21 20	20 39	9	10
9	20	26 59	26 17	25 36	24 55	24 16	23 35	22 55	22 15	21 36	20 57	20 18	19 39	9	20
9	30	25 38	24 57	24 18	23 39	23 01	22 22	21 44	21 07	20 28	19 51	19 14	18 37	9	30
9	40	24 13	23 34	22 57	22 20	21 43	21 06	20 30	19 54	19 19	18 43	18 09	17 33	9	40
9	50	22 44	22 09	21 33	20 58	20 24	19 51	19 15	18 40	18 07	17 33	17 01	16 27	9	50
10	00	21 14	20 40	20 06	19 34	19 01	18 28	17 56	17 24	16 53	16 21	15 51	15 20	10	00
10	10	19 40	19 08	18 36	18 06	17 35	17 05	16 35	16 06	15 36	15 07	14 38	14 09	10	10
10	20	18 04	17 34	17 05	16 36	16 08	15 40	15 12	14 45	14 19	13 51	13 25	12 59	10	20
10	30	16 23	15 56	15 30	15 04	14 38	14 13	13 47	13 23	12 59	12 34	12 09	11 45	10	30
10	40	14 42	14 17	13 53	13 29	13 06	12 43	12 20	11 58	11 36	11 15	10 53	10 31	10	40
10	50	12 56	12 35	12 14	11 53	11 33	11 12	10 52	10 32	10 13	9 53	9 34	9 16	10	50
11	00	11 10	10 52	10 33	10 15	9 56	9 39	9 21	9 05	8 48	8 31	8 15	7 58	11	00
11	10	9 22	9 05	8 50	8 35	8 20	8 05	7 51	7 36	7 22	7 08	6 54	6 40	11	10
11	20	7 31	7 18	7 05	6 54	6 41	6 30	6 18	6 06	5 54	5 44	5 33	5 21	11	20
11	30	5 39	5 30	5 21	5 11	5 03	4 53	4 44	4 35	4 27	4 19	4 10	4 02	11	30
11	40	3 47	3 40	3 34	3 28	3 22	3 16	3 10	3 04	2 58	2 53	2 47	2 42	11	40
11	50	1 53	1 51	1 48	1 44	1 41	1 38	1 35	1 32	1 29	1 26	1 23	1 20	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 14°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 14°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°		Hour Angle.	
h. m.	0	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	h. m.	0
	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		00
	10	1 44	1 39	1 34	1 30	1 26	1 21	1 17	1 14	1 10	1 06	1 02	1 02		10
	20	3 28	3 18	3 09	3 00	2 51	2 42	2 35	2 26	2 19	2 11	2 03	2 03		20
	30	5 11	4 57	4 42	4 29	4 16	4 03	3 51	3 39	3 27	3 16	3 04	3 04		30
	40	6 52	6 34	6 15	5 57	5 40	5 23	5 07	4 51	4 36	4 21	4 05	4 05		40
	50	8 31	8 09	7 46	7 24	7 02	6 41	6 21	6 01	5 42	5 23	5 05	5 05		50
1	00	10 08	9 41	9 14	8 48	8 24	7 59	7 35	7 12	6 49	6 26	6 04	6 04	1	00
	10	11 43	11 12	10 41	10 11	9 42	9 14	8 46	8 20	7 53	7 27	7 03	7 03		10
	20	13 14	12 39	12 05	11 31	10 59	10 27	9 57	9 26	8 56	8 28	7 59	7 59		20
	30	14 42	14 05	13 27	12 50	12 14	11 38	11 04	10 31	9 58	9 26	8 55	8 55		30
	40	16 07	15 26	14 45	14 05	13 26	12 47	12 10	11 34	10 58	10 23	9 48	9 48		40
	50	17 29	16 45	16 00	15 17	14 35	13 54	13 13	12 34	11 55	11 17	10 40	10 40		50
2	00	18 46	17 59	17 12	16 27	15 42	14 57	14 15	13 33	12 51	12 11	11 30	11 30	2	00
	10	20 00	19 10	18 20	17 32	16 45	15 59	15 14	14 28	13 44	13 01	12 18	12 18		10
	20	21 09	20 17	19 25	18 35	17 45	16 56	16 09	15 22	14 36	13 50	13 05	13 05		20
	30	22 14	21 20	20 27	19 35	18 43	17 52	17 02	16 13	15 24	14 36	13 49	13 49		30
	40	23 16	22 20	21 24	20 30	19 37	18 44	17 53	17 01	16 11	15 21	14 32	14 32		40
	50	24 12	23 16	22 19	21 22	20 27	19 34	18 40	17 47	16 54	16 03	15 12	15 12		50
3	00	25 06	24 08	23 09	22 12	21 15	20 19	19 24	18 29	17 35	16 42	15 49	15 49	3	00
	10	25 55	24 55	23 56	22 57	22 00	21 02	20 06	19 10	18 14	17 19	16 25	16 25		10
	20	26 40	25 39	24 39	23 39	22 40	21 41	20 44	19 47	18 50	17 53	16 58	16 58		20
	30	27 21	26 20	25 19	24 18	23 18	22 18	21 20	20 22	19 24	18 26	17 29	17 29		30
	40	27 58	26 56	25 55	24 54	23 53	22 52	21 53	20 53	19 55	18 56	17 58	17 58		40
	50	28 32	27 30	26 28	25 26	24 24	23 23	22 23	21 23	20 22	19 23	18 24	18 24		50
4	00	29 02	27 59	26 57	25 54	24 52	23 51	22 49	21 48	20 48	19 47	18 47	18 47	4	00
	10	29 28	28 26	27 22	26 19	25 17	24 15	23 13	22 12	21 11	20 10	19 09	19 09		10
	20	29 51	28 49	27 45	26 42	25 39	24 36	23 34	22 32	21 31	20 30	19 29	19 29		20
	30	30 11	29 08	28 04	27 01	25 59	24 56	23 54	22 51	21 49	20 46	19 45	19 45		30
	40	30 27	29 24	28 20	27 17	26 14	25 11	24 09	23 06	22 04	21 01	20 00	20 00		40
	50	30 40	29 37	28 33	27 30	26 27	25 25	24 22	23 19	22 16	21 14	20 11	20 11		50
5	00	30 50	29 47	28 43	27 40	26 38	25 35	24 33	23 29	22 27	21 23	20 21	20 21	5	00
	10	30 57	29 54	28 51	27 48	26 45	25 42	24 40	23 37	22 34	21 31	20 29	20 29		10
	20	31 00	29 58	28 55	27 53	26 49	25 47	24 45	23 42	22 40	21 37	20 35	20 35		20
	30	31 00	29 59	28 56	27 54	26 52	25 49	24 47	23 45	22 42	21 40	20 37	20 37		30
	40	30 58	29 57	28 55	27 53	26 51	25 49	24 47	23 45	22 43	21 40	20 38	20 38		40
	50	30 52	29 52	28 51	27 49	26 47	25 46	24 42	23 42	22 41	21 39	20 37	20 37		50
6	00	30 45	29 44	28 43	27 42	26 41	25 40	24 39	23 38	22 37	21 35	20 34	20 34	6	00
	10	30 34	29 35	28 33	27 33	26 32	25 32	24 32	23 31	22 30	21 29	20 28	20 28		10
	20	30 21	29 21	28 21	27 22	26 22	25 22	24 22	23 22	22 21	21 21	20 21	20 21		20
	30	30 05	29 06	28 07	27 07	26 08	25 09	24 09	23 10	22 10	21 10	20 11	20 11		30
	40	29 45	28 47	27 49	26 51	25 53	24 54	23 55	22 56	21 57	20 58	19 59	19 59		40
	50	29 23	28 27	27 29	26 32	25 33	24 36	23 38	22 40	21 42	20 44	19 46	19 46		50
7	00	28 59	28 03	27 07	26 09	25 12	24 15	23 19	22 22	21 25	20 27	19 29	19 29	7	00
	10	28 32	27 37	26 41	25 45	24 49	23 53	22 58	22 01	21 05	20 09	19 12	19 12		10
	20	28 02	27 09	26 14	25 19	24 23	23 29	22 34	21 39	20 44	19 48	18 52	18 52		20
	30	27 31	26 37	25 43	24 50	23 56	23 02	22 08	21 13	20 20	19 26	18 31	18 31		30
	40	26 56	26 04	25 11	24 19	23 26	22 33	21 40	20 47	19 54	19 00	18 08	18 08		40
	50	26 20	25 28	24 36	23 45	22 53	22 02	21 10	20 19	19 27	18 34	17 43	17 43		50
8	00	25 40	24 50	23 59	23 09	22 18	21 28	20 38	19 47	18 57	18 07	17 16	17 16	8	00
	10	24 58	24 10	23 20	22 31	21 42	20 53	20 04	19 15	18 26	17 37	16 47	16 47		10
	20	24 15	23 26	22 39	21 51	21 04	20 15	19 28	18 40	17 53	17 05	16 17	16 17		20
	30	23 27	22 42	21 55	21 08	20 22	19 36	18 51	18 04	17 18	16 31	15 45	15 45		30
	40	22 39	21 54	21 09	20 24	19 39	18 55	18 10	17 26	16 41	15 56	15 11	15 11		40
	50	21 47	21 05	20 21	19 37	18 55	18 11	17 28	16 45	16 03	15 19	14 36	14 36		50
9	00	20 54	20 12	19 31	18 49	18 07	17 26	16 45	16 03	15 23	14 41	14 00	14 00	9	00
	10	19 58	19 19	18 38	17 58	17 19	16 38	15 59	15 20	14 40	14 01	13 22	13 22		10
	20	19 00	18 22	17 44	17 06	16 28	15 50	15 12	14 35	13 58	13 20	12 42	12 42		20
	30	18 00	17 24	16 48	16 12	15 36	14 59	14 24	13 48	13 13	12 37	12 02	12 02		30
	40	16 59	16 24	15 49	15 16	14 41	14 07	13 33	13 00	12 27	11 53	11 19	11 19		40
	50	15 55	15 22	14 50	14 18	13 46	13 14	12 42	12 11	11 39	11 08	10 36	10 36		50
10	00	14 49	14 19	13 48	13 19	12 49	12 19	11 50	11 20	10 51	10 21	9 52	9 52	10	00
	10	13 41	13 13	12 45	12 18	11 50	11 23	10 55	10 28	10 01	9 33	9 07	9 07		10
	20	12 32	12 06	11 41	11 15	10 51	10 25	9 59	9 34	9 10	8 45	8 20	8 20		20
	30	11 21	10 58	10 35	10 12	9 49	9 26	9 03	8 40	8 18	7 56	7 32	7 32		30
	40	10 09	9 49	9 28	9 07	8 46	8 26	8 05	7 45	7 25	7 05	6 45	6 45		40
	50	8 57	8 38	8 19	8 01	7 43	7 24	7 07	6 49	6 32	6 14	5 56	5 56		50
11	00	7 42	7 26	7 10	6 55	6 38	6 23	6 08	5 52	5 36	5 22	5 06	5 06	11	00
	10	6 26	6 13	6 00	5 47	5 34	5 20	5 07	4 54	4 42	4 28	4 16	4 16		10
	20	5 10	5 00	4 49	4 38	4 28	4 17	4 07	3 57	3 46	3 36	3 25	3 25		20
	30	3 53	3 45	3 37	3 29	3 22	3 13	3 05	2 58	2 50	2 42	2 34	2 34		30
	40	2 36	2 31	2 25	2 19	2 14	2 09	2 04	1 59	1 54	1 48	1 43	1 43		40
	50	1 18	1 15	1 12	1 10	1 07	1 04	1 02	0 59	0 54	0 50	0 50	0 50		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 15°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 15°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	14 16	12 48	11 36	10 35	9 42	8 58	8 18	7 43	7 13	6 45	6 20	5 58		10
	20	26 51	24 21	22 13	20 24	18 49	17 26	16 12	15 07	14 09	13 16	12 29	11 46		20
	30	37 07	33 58	31 19	29 00	26 56	25 05	23 26	21 57	20 37	19 24	18 17	17 16		30
	40	44 45	41 37	38 46	36 13	33 52	31 46	29 50	28 04	26 29	25 00	23 39	22 24		40
	50	50 40	47 35	44 45	42 06	39 40	37 26	35 22	33 27	31 40	30 01	28 29	27 04		50
1	00	55 11	52 15	49 29	46 54	44 28	42 12	40 04	38 04	36 12	34 27	32 48	31 16	1	00
	10	58 39	55 54	53 17	50 48	48 25	46 11	44 03	42 02	40 08	38 19	36 37	35 00		10
	20	61 21	58 47	56 19	53 57	51 40	49 30	47 24	45 24	43 30	41 41	39 57	38 17		20
	30	63 29	61 06	58 47	56 32	54 21	52 15	50 14	48 17	46 24	44 35	42 51	41 11		30
	40	65 10	62 57	60 46	58 39	56 34	54 34	52 36	50 42	48 53	47 06	45 23	43 44		40
	50	66 32	64 26	62 23	60 23	58 25	56 28	54 36	52 46	51 00	49 16	47 35	45 56		50
2	00	67 37	65 40	63 43	61 49	59 56	58 05	56 18	54 32	52 49	51 07	49 28	47 53	2	00
	10	68 30	66 38	64 48	62 59	61 13	59 27	57 43	56 01	54 22	52 43	51 07	49 33		10
	20	69 12	67 25	65 41	63 58	62 16	60 35	58 56	57 18	55 40	54 06	52 32	51 01		20
	30	69 44	68 04	66 25	64 47	63 09	61 32	59 56	58 21	56 48	55 16	53 46	52 17		30
	40	70 10	68 35	67 00	65 26	63 52	62 20	60 47	59 16	57 46	56 17	54 49	53 21		40
	50	70 30	68 59	67 28	65 57	64 28	62 59	61 30	60 02	58 34	57 08	55 43	54 18		50
3	00	70 44	69 17	67 50	66 24	64 57	63 31	62 05	60 40	59 15	57 51	56 28	55 06	3	00
	10	70 54	69 30	68 07	66 43	65 20	63 56	62 34	61 11	59 49	58 28	57 07	55 47		10
	20	71 01	69 39	68 18	66 58	65 37	64 17	62 57	61 37	60 17	58 58	57 39	56 21		20
	30	71 02	69 44	68 25	67 08	65 49	64 32	63 14	61 56	60 39	59 22	58 05	56 49		30
	40	71 02	69 46	68 30	67 15	65 59	64 43	63 27	62 12	60 57	59 42	58 27	57 13		40
	50	70 57	69 44	68 31	67 17	66 03	64 50	63 37	62 23	61 10	59 56	58 43	57 30		50
4	00	70 51	69 39	68 28	67 17	66 05	64 53	63 41	62 29	61 18	60 07	58 55	57 43	4	00
	10	70 42	69 33	68 23	67 13	66 03	64 53	63 43	62 33	61 23	60 13	59 03	57 53		10
	20	70 31	69 22	68 15	67 06	65 57	64 50	63 41	62 32	61 24	60 15	59 06	57 59		20
	30	70 17	69 11	68 04	66 57	65 50	64 43	63 36	62 29	61 21	60 15	59 07	58 00		30
	40	70 01	68 56	67 51	66 45	65 39	64 34	63 28	62 22	61 16	60 10	59 05	57 59		40
	50	69 43	68 39	67 35	66 31	65 27	64 22	63 18	62 13	61 08	60 03	58 58	57 53		50
5	00	69 23	68 21	67 18	66 15	65 11	64 08	63 04	62 00	60 57	59 53	58 49	57 46	5	00
	10	69 03	68 00	66 58	65 56	64 53	63 51	62 49	61 46	60 43	59 39	58 37	57 34		10
	20	68 38	67 37	66 36	65 35	64 33	63 32	62 30	61 28	60 27	59 24	58 22	57 20		20
	30	68 13	67 12	66 12	65 12	64 11	63 10	62 09	61 08	60 07	59 06	58 05	57 04		30
	40	67 46	66 45	65 46	64 46	63 45	62 45	61 45	60 45	59 44	58 44	57 44	56 44		40
	50	67 16	66 16	65 17	64 18	63 18	62 19	61 20	60 20	59 21	58 20	57 21	56 21		50
6	00	66 43	65 45	64 46	63 48	62 49	61 50	60 51	59 52	58 53	57 54	56 55	55 56	6	00
	10	66 10	65 12	64 13	63 15	62 16	61 18	60 20	59 22	58 24	57 24	56 26	55 27		10
	20	65 34	64 36	63 39	62 41	61 42	60 45	59 47	58 49	57 51	56 53	55 55	54 57		20
	30	64 55	63 58	63 01	62 04	61 06	60 08	59 11	58 14	57 16	56 19	55 21	54 24		30
	40	64 15	63 18	62 21	61 24	60 26	59 29	58 32	57 35	56 38	55 41	54 44	53 47		40
	50	63 32	62 35	61 38	60 41	59 44	58 48	57 51	56 54	55 58	55 00	54 04	53 07		50
7	00	62 47	61 49	60 53	59 56	59 00	58 03	57 07	56 10	55 14	54 18	53 22	52 25	7	00
	10	61 57	61 01	60 05	59 08	58 11	57 16	56 19	55 23	54 28	53 32	52 35	51 40		10
	20	61 07	60 09	59 13	58 17	57 21	56 25	55 29	54 33	53 38	52 42	51 47	50 52		20
	30	60 12	59 15	58 19	57 23	56 27	55 32	54 36	53 40	52 45	51 49	50 54	50 00		30
	40	59 15	58 17	57 22	56 25	55 30	54 34	53 39	52 44	51 48	50 53	49 59	49 05		40
	50	58 13	57 17	56 21	55 25	54 29	53 34	52 39	51 43	50 49	49 54	49 00	48 06		50
8	00	57 08	56 11	55 16	54 20	53 24	52 30	51 34	50 40	49 45	48 51	47 57	47 04	8	00
	10	55 59	55 02	54 07	53 11	52 16	51 21	50 27	49 32	48 38	47 45	46 51	45 58		10
	20	54 46	53 49	52 54	51 59	51 04	50 09	49 15	48 21	47 27	46 33	45 41	44 48		20
	30	53 29	52 32	51 37	50 41	49 46	48 51	47 58	47 04	46 11	45 18	44 26	43 35		30
	40	52 06	51 09	50 14	49 19	48 24	47 31	46 37	45 44	44 51	43 59	43 08	42 17		40
	50	50 38	49 42	48 47	47 52	46 58	46 04	45 12	44 19	43 27	42 35	41 44	40 55		50
9	00	49 05	48 08	47 13	46 20	45 26	44 33	43 40	42 48	41 57	41 07	40 16	39 25	9	00
	10	47 25	46 29	45 35	44 41	43 48	42 55	42 04	41 13	40 23	39 33	38 44	37 55		10
	20	45 39	44 44	43 51	42 57	42 05	41 14	40 23	39 33	38 44	37 54	37 06	36 20		20
	30	43 47	42 52	42 00	41 07	40 15	39 25	38 35	37 47	36 58	36 10	35 24	34 38		30
	40	41 47	40 53	40 01	39 10	38 19	37 31	36 42	35 54	35 06	34 21	33 36	32 52		40
	50	39 39	38 46	37 57	37 06	36 17	35 29	34 42	33 56	33 11	32 26	31 42	30 59		50
10	00	37 23	36 33	35 44	34 55	34 07	33 22	32 36	31 52	31 09	30 25	29 44	29 03	10	00
	10	35 00	34 10	33 23	32 37	31 51	31 06	30 24	29 41	29 00	28 19	27 40	27 01		10
	20	32 28	31 40	30 55	30 11	29 27	28 46	28 05	27 25	26 45	26 08	25 30	24 54		20
	30	29 46	29 02	28 19	27 37	26 57	26 18	25 39	25 02	24 26	23 50	23 15	22 42		30
	40	26 56	26 15	25 35	24 56	24 19	23 43	23 07	22 33	21 59	21 27	20 55	20 24		40
	50	23 57	23 20	22 44	22 09	21 34	21 01	20 30	19 59	19 29	18 59	18 30	18 03		50
11	00	20 50	20 16	19 45	19 13	18 43	18 14	17 46	17 19	16 52	16 27	16 01	15 36	11	00
	10	17 36	17 06	16 39	16 12	15 46	15 22	14 58	14 34	14 11	13 50	13 28	13 07		10
	20	14 14	13 50	13 27	13 05	12 44	12 23	12 04	11 45	11 27	11 08	10 50	10 34		20
	30	10 46	10 27	10 10	9 54	9 37	9 21	9 06	8 52	8 38	8 24	8 11	7 58		30
	40	7 13	7 01	6 49	6 38	6 27	6 16	6 06	5 56	5 47	5 37	5 29	5 20		40
	50	3 38	3 31	3 25	3 20	3 14	3 09	3 03	2 59	2 54	2 49	2 44	2 41		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 15°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 15°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	5 37	5 18	5 02	4 46	4 31	4 18	4 05	3 54	3 42	3 32	3 21	3 13		10
	20	11 06	10 30	9 57	9 26	8 58	8 31	8 06	7 43	7 22	7 01	6 42	6 24		20
	30	16 20	15 28	14 41	13 56	13 15	12 36	12 01	11 27	10 55	10 25	9 57	9 30		30
	40	21 15	20 10	19 10	18 13	17 22	16 32	15 47	15 03	14 22	13 43	13 07	12 32		40
	50	25 44	24 29	23 20	22 14	21 12	20 15	19 19	18 28	17 40	16 53	16 09	15 28		50
1	00	29 48	28 26	27 09	25 56	24 47	23 41	22 40	21 41	20 45	19 52	19 02	18 14	1	00
	10	33 28	32 01	30 38	29 20	28 05	26 54	25 46	24 42	23 40	22 42	21 46	20 52		10
	20	36 43	35 13	33 47	32 24	31 05	29 50	28 37	27 29	26 23	25 19	24 19	23 20		20
	30	39 36	38 03	36 35	35 11	33 49	32 31	31 15	30 02	28 53	27 46	26 41	25 40		30
	40	42 08	40 36	39 06	37 40	36 17	34 56	33 38	32 24	31 11	30 01	28 53	27 49		40
	50	44 21	42 49	41 20	39 53	38 29	37 06	35 48	34 32	33 17	32 05	30 55	29 48		50
2	00	46 19	44 48	43 19	41 52	40 28	39 06	37 45	36 27	35 12	33 59	32 48	31 39	2	00
	10	48 02	46 31	45 02	43 37	42 13	40 50	39 31	38 13	36 57	35 42	34 29	33 19		10
	20	49 30	48 02	46 35	45 11	43 47	42 25	41 05	39 47	38 30	37 16	36 02	34 51		20
	30	50 49	49 22	47 56	46 33	45 11	43 50	42 30	41 11	39 55	38 40	37 27	36 15		30
	40	51 56	50 31	49 07	47 45	46 24	45 04	43 45	42 28	41 12	39 57	38 43	37 31		40
	50	52 54	51 31	50 09	48 48	47 28	46 09	44 52	43 34	42 19	41 04	39 50	38 39		50
3	00	53 44	52 23	51 03	49 43	48 25	47 07	45 51	44 34	43 19	42 05	40 52	39 40	3	00
	10	54 27	53 08	51 49	50 31	49 14	47 58	46 42	45 27	44 13	42 59	41 46	40 35		10
	20	55 04	53 46	52 29	51 12	49 57	48 41	47 27	46 12	44 59	43 47	42 34	41 23		20
	30	55 33	54 18	53 02	51 47	50 33	49 19	48 05	46 52	45 40	44 28	43 16	42 06		30
	40	55 58	54 44	53 30	52 16	51 03	49 50	48 38	47 26	46 14	45 03	43 53	42 43		40
	50	56 18	55 05	53 53	52 41	51 28	50 17	49 06	47 55	46 44	45 34	44 24	43 15		50
4	00	56 33	55 22	54 10	52 59	51 49	50 38	49 28	48 19	47 09	46 00	44 50	43 42	4	00
	10	56 43	55 33	54 23	53 14	52 05	50 56	49 48	48 38	47 29	46 20	45 12	44 04		10
	20	56 50	55 41	54 33	53 25	52 17	51 08	50 00	48 52	47 45	46 37	45 29	44 22		20
	30	56 53	55 46	54 39	53 31	52 24	51 17	50 10	49 03	47 56	46 49	45 43	44 36		30
	40	56 52	55 46	54 40	53 34	52 28	51 21	50 15	49 09	48 04	46 57	45 51	44 46		40
	50	56 48	55 43	54 38	53 34	52 29	51 23	50 18	49 13	48 08	47 02	45 57	44 52		50
5	00	56 42	55 37	54 33	53 29	52 25	51 21	50 16	49 12	48 08	47 03	45 58	44 55	5	00
	10	56 31	55 28	54 25	53 21	52 18	51 14	50 11	49 08	48 05	47 01	45 57	44 54		10
	20	56 18	55 16	54 14	53 11	52 08	51 05	50 03	49 00	47 58	46 55	45 52	44 50		20
	30	56 02	55 01	53 59	52 57	51 55	50 54	49 52	48 50	47 48	46 46	45 44	44 42		30
	40	55 43	54 42	53 41	52 40	51 39	50 38	49 37	48 36	47 35	46 33	45 32	44 31		40
	50	55 21	54 21	53 21	52 21	51 21	50 20	49 19	48 19	47 18	46 18	45 18	44 17		50
6	00	54 56	53 57	52 57	51 58	50 58	49 58	48 58	47 59	46 59	46 00	44 59	44 00	6	00
	10	54 29	53 30	52 32	51 33	50 34	49 35	48 35	47 36	46 37	45 38	44 39	43 40		10
	20	53 59	53 01	52 03	51 05	50 06	49 07	48 09	47 10	46 12	45 13	44 15	43 16		20
	30	53 26	52 28	51 31	50 33	49 35	48 37	47 39	46 41	45 43	44 46	43 48	42 50		30
	40	52 50	51 53	50 56	49 58	48 59	47 59	46 59	45 59	44 59	43 59	42 59	41 59		40
	50	52 11	51 14	50 18	49 22	48 24	47 28	46 31	45 35	44 38	43 42	42 44	41 48		50
7	00	51 30	50 33	49 37	48 41	47 45	46 49	45 53	44 57	44 01	43 05	42 09	41 13	7	00
	10	50 44	49 48	48 53	47 57	47 02	46 06	45 11	44 15	43 20	42 24	41 28	40 34		10
	20	49 56	49 01	48 06	47 11	46 16	45 21	44 26	43 31	42 37	41 42	40 48	39 54		20
	30	49 05	48 11	47 16	46 21	45 27	44 32	43 38	42 45	41 50	40 56	40 02	39 10		30
	40	48 10	47 16	46 22	45 29	44 35	43 41	42 47	41 53	41 01	40 07	39 14	38 21		40
	50	47 13	46 19	45 25	44 32	43 39	42 46	41 53	41 00	40 08	39 15	38 23	37 32		50
8	00	46 10	45 18	44 25	43 32	42 39	41 47	40 53	40 03	39 11	38 20	37 28	36 37	8	00
	10	45 06	44 12	43 20	42 28	41 36	40 46	39 53	39 02	38 12	37 21	36 31	35 41		10
	20	43 56	43 05	42 13	41 21	40 31	39 40	38 49	37 58	37 09	36 19	35 30	34 41		20
	30	42 43	41 51	41 01	40 11	39 20	38 30	37 40	36 51	36 03	35 14	34 25	33 37		30
	40	41 28	40 35	39 45	38 56	38 06	37 17	36 28	35 40	34 53	34 05	33 17	32 30		40
	50	40 04	39 15	38 25	37 37	36 48	36 00	35 13	34 26	33 39	32 52	32 07	31 21		50
9	00	38 38	37 50	37 02	36 14	35 27	34 40	33 53	33 07	32 21	31 37	30 52	30 07	9	00
	10	37 08	36 20	35 33	34 47	34 01	33 14	32 29	31 45	31 01	30 17	29 33	28 50		10
	20	35 32	34 46	34 00	33 16	32 30	31 46	31 03	30 19	29 36	28 54	28 12	27 30		20
	30	33 52	33 07	32 23	31 39	30 56	30 13	29 30	28 48	28 08	27 27	26 47	26 07		30
	40	32 07	31 23	30 41	30 00	29 17	28 36	27 56	27 16	26 37	25 57	25 19	24 41		40
	50	30 17	29 36	28 55	28 15	27 35	26 55	26 16	25 38	25 02	24 24	23 48	23 12		50
10	00	28 22	27 43	27 04	26 25	25 48	25 11	24 34	23 58	23 23	22 47	22 13	21 39	10	00
	10	26 22	25 45	25 08	24 32	23 56	23 21	22 47	22 13	21 40	21 07	20 35	20 03		10
	20	24 17	24 42	23 08	22 34	22 01	21 29	20 57	20 25	19 54	19 24	18 54	18 24		20
	30	22 08	21 36	21 04	20 33	20 02	19 32	19 03	18 33	18 06	17 37	17 09	16 42		30
	40	19 54	19 24	18 55	18 27	17 59	17 31	17 04	16 38	16 13	15 48	15 22	14 58		40
	50	17 35	17 09	16 43	16 18	15 53	15 28	15 05	14 41	14 18	13 55	13 33	13 12		50
11	00	15 13	14 49	14 27	14 04	13 43	13 22	13 01	12 41	12 21	12 01	11 42	11 23	11	00
	10	12 47	12 27	12 08	11 49	11 30	11 12	10 55	10 38	10 21	10 04	9 48	9 32		10
	20	10 17	10 01	9 46	9 31	9 16	9 01	8 47	8 33	8 20	8 06	7 53	7 39		20
	30	7 45	7 33	7 21	7 09	6 58	6 48	6 36	6 26	6 16	6 06	5 56	5 46		30
	40	5 12	5 03	4 56	4 47	4 39	4 33	4 25	4 18	4 11	4 04	3 57	3 52		40
	50	2 36	2 32	2 28	2 24	2 21	2 17	2 13	2 09	2 05	2 02	1 59	1 56		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 15°.				DECLINATION—SAME NAME AS—LATITUDE.																LATITUDE 15°.									
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	0	1	2	3	4	5	6	7	8	9	10	11	h.	m.	0	1	2	3	4	5	6	7	8	9	10	11	h.	m.
		00	10	20	30	40	50	00	10	20	30	40	50			00	10	20	30	40	50	00	10	20	30	40	50		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	3 04	2 55	2 48	2 40	2 33	2 27	2 20	2 14	2 07	2 02	1 56	1 51		10	3 04	2 55	2 48	2 40	2 33	2 27	2 20	2 14	2 07	2 02	1 56		10	
	20	6 06	5 50	5 34	5 20	5 06	4 52	4 39	4 26	4 15	4 04	3 52	3 42		20	6 06	5 50	5 34	5 20	5 06	4 52	4 39	4 26	4 15	4 04	3 52		20	
	30	9 05	8 41	8 18	7 56	7 35	7 16	6 56	6 37	6 20	6 03	5 47	5 31		30	9 05	8 41	8 18	7 56	7 35	7 16	6 56	6 37	6 20	6 03	5 47		30	
	40	11 59	11 27	10 58	10 30	10 02	9 36	9 10	8 47	8 24	8 01	7 40	7 19		40	11 59	11 27	10 58	10 30	10 02	9 36	9 10	8 47	8 24	8 01	7 40		40	
	50	14 47	14 09	13 33	12 58	12 25	11 53	11 22	10 53	10 24	9 56	9 30	9 04		50	14 47	14 09	13 33	12 58	12 25	11 53	11 22	10 53	10 24	9 56	9 30		50	
1	00	17 28	16 44	16 02	15 21	14 42	14 05	13 29	12 54	12 21	11 49	11 17	10 47	1	00	17 28	16 44	16 02	15 21	14 42	14 05	13 29	12 54	12 21	11 49	11 17	10 47		
	10	20 00	19 12	18 24	17 38	16 54	16 12	15 32	14 52	14 14	13 38	13 02	12 28		10	20 00	19 12	18 24	17 38	16 54	16 12	15 32	14 52	14 14	13 38	13 02	12 28		
	20	22 25	21 30	20 39	19 48	19 00	18 14	17 29	16 46	16 03	15 22	14 43	14 04		20	22 25	21 30	20 39	19 48	19 00	18 14	17 29	16 46	16 03	15 22	14 43	14 04		
	30	24 40	23 42	22 46	21 52	21 00	20 09	19 20	18 33	17 47	17 03	16 19	15 38		30	24 40	23 42	22 46	21 52	21 00	20 09	19 20	18 33	17 47	17 03	16 19	15 38		
	40	26 46	25 45	24 46	23 48	22 53	21 59	21 07	20 16	19 26	18 38	17 52	17 07		40	26 46	25 45	24 46	23 48	22 53	21 59	21 07	20 16	19 26	18 38	17 52	17 07		
	50	28 42	27 39	26 37	25 36	24 39	23 42	22 46	21 52	21 00	20 10	19 20	18 32		50	28 42	27 39	26 37	25 36	24 39	23 42	22 46	21 52	21 00	20 10	19 20	18 32		
2	00	30 30	29 25	28 21	27 19	26 17	25 19	24 20	23 24	22 29	21 36	20 44	19 52	2	00	30 30	29 25	28 21	27 19	26 17	25 19	24 20	23 24	22 29	21 36	20 44	19 52		
	10	32 11	31 03	29 56	28 52	27 49	26 48	25 48	24 50	23 52	22 57	22 02	21 08		10	32 11	31 03	29 56	28 52	27 49	26 48	25 48	24 50	23 52	22 57	22 02	21 08		
	20	33 41	32 32	31 25	30 19	29 15	28 12	27 10	26 09	25 10	24 12	23 16	22 20		20	33 41	32 32	31 25	30 19	29 15	28 12	27 10	26 09	25 10	24 12	23 16	22 20		
	30	35 04	33 54	32 46	31 39	30 33	29 30	28 27	27 25	26 24	25 24	24 25	23 27		30	35 04	33 54	32 46	31 39	30 33	29 30	28 27	27 25	26 24	25 24	24 25	23 27		
	40	36 20	35 09	34 01	32 53	31 46	30 41	29 37	28 33	27 31	26 31	25 30	24 30		40	36 20	35 09	34 01	32 53	31 46	30 41	29 37	28 33	27 31	26 31	25 30	24 30		
	50	37 27	36 17	35 08	34 00	32 52	31 46	30 41	29 37	28 34	27 32	26 30	25 29		50	37 27	36 17	35 08	34 00	32 52	31 46	30 41	29 37	28 34	27 32	26 30	25 29		
3	00	38 29	37 18	36 09	35 00	33 52	32 45	31 39	30 35	29 31	28 28	27 25	26 23	3	00	38 29	37 18	36 09	35 00	33 52	32 45	31 39	30 35	29 31	28 28	27 25	26 23		
	10	39 24	38 13	37 04	35 55	34 47	33 40	32 33	31 28	30 23	29 20	28 16	27 14		10	39 24	38 13	37 04	35 55	34 47	33 40	32 33	31 28	30 23	29 20	28 16	27 14		
	20	40 12	39 03	37 53	36 44	35 36	34 29	33 23	32 17	31 11	30 07	29 03	27 49		20	40 12	39 03	37 53	36 44	35 36	34 29	33 23	32 17	31 11	30 07	29 03	27 49		
	30	40 55	39 46	38 36	37 28	36 20	35 12	34 06	33 00	31 54	30 49	29 45	28 41		30	40 55	39 46	38 36	37 28	36 20	35 12	34 06	33 00	31 54	30 49	29 45	28 41		
	40	41 34	40 24	39 15	38 07	36 59	35 51	34 45	33 38	32 33	31 28	30 23	29 19		40	41 34	40 24	39 15	38 07	36 59	35 51	34 45	33 38	32 33	31 28	30 23	29 19		
	50	42 05	40 56	39 48	38 40	37 32	36 25	35 19	34 13	33 07	32 02	30 56	29 52		50	42 05	40 56	39 48	38 40	37 32	36 25	35 19	34 13	33 07	32 02	30 56	29 52		
4	00	42 33	41 25	40 17	39 09	38 03	36 56	35 49	34 42	33 37	32 32	31 27	30 22	4	00	42 33	41 25	40 17	39 09	38 03	36 56	35 49	34 42	33 37	32 32	31 27	30 22		
	10	42 57	41 49	40 41	39 34	38 28	37 21	36 15	35 08	34 03	32 59	31 53	30 48		10	42 57	41 49	40 41	39 34	38 28	37 21	36 15	35 08	34 03	32 59	31 53	30 48		
	20	43 15	42 08	41 01	39 54	38 48	37 42	36 36	35 31	34 26	33 21	32 15	31 10		20	43 15	42 08	41 01	39 54	38 48	37 42	36 36	35 31	34 26	33 21	32 15	31 10		
	30	43 29	42 24	41 17	40 11	39 05	38 00	36 54	35 49	34 44	33 39	32 34	31 29		30	43 29	42 24	41 17	40 11	39 05	38 00	36 54	35 49	34 44	33 39	32 34	31 29		
	40	43 41	42 35	41 29	40 24	39 19	38 13	37 08	36 03	34 58	33 54	32 49	31 45		40	43 41	42 35	41 29	40 24	39 19	38 13	37 08	36 03	34 58	33 54	32 49	31 45		
	50	43 47	42 42	41 37	40 32	39 28	38 23	37 18	36 13	35 09	34 05	33 00	31 56		50	43 47	42 42	41 37	40 32	39 28	38 23	37 18	36 13	35 09	34 05	33 00	31 56		
5	00	43 50	42 46	41 42	40 38	39 33	38 29	37 25	36 21	35 17	34 13	33 09	32 05	5	00	43 50	42 46	41 42	40 38	39 33	38 29	37 25	36 21	35 17	34 13	33 09	32 05		
	10	43 51	42 46	41 43	40 39	39 36	38 32	37 28	36 25	35 22	34 19	33 15	32 11		10	43 51	42 46	41 43	40 39	39 36	38 32	37 28	36 25	35 22	34 19	33 15	32 11		
	20	43 47	42 44	41 41	40 38	39 34	38 31	37 29	36 26	35 23	34 19	33 16	32 13		20	43 47	42 44	41 41	40 38	39 34	38 31	37 29	36 26	35 23	34 19	33 16	32 13		
	30	43 39	42 37	41 35	40 33	39 31	38 28	37 25	36 22	35 20	34 18	33 15	32 12		30	43 39	42 37	41 35	40 33	39 31	38 28	37 25	36 22	35 20	34 18	33 15	32 12		
	40	43 30	42 28	41 26	40 25	39 23	38 21	37 19	36 17	35 15	34 13	33 11	32 08		40	43 30	42 28	41 26	40 25	39 23	38 21	37 19	36 17	35 15	34 13	33 11	32 08		
	50	43 16	42 16	41 15	40 13	39 12	38 11	37 10	36 08	35 07	34 06	33 04	32 02		50	43 16	42 16	41 15	40 13	39 12	38 11	37 10	36 08	35 07	34 06	33 04	32 02		
6	00	43 00	41 59	40 59	39 58	38 58	37 58	36 57	35 56	34 56	33 56	32 54	31 53	6	00	43 00	41 59	40 59	39 58	38 58	37 58	36 57	35 56	34 56	33 56	32 54	31 53		
	10	42 40	41 40	40 40	39 41	38 41	37 41	36 42	35 42	34 41	33 41	32 41	31 41		10	42 40	41 40	40 40	39 41	38 41	37 41	36 42	35 42	34 41	33 41	32 41	31 41		
	20	42 18	41 18	40 19	39 20	38 21	37 22	36 23	35 24	34 24	33 24	32 25	31 25		20	42 18													

AZIMUTH OR TRUE BEARING.

LATITUDE 15°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 15°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	1 46	1 41	1 36	1 31	1 28	1 23	1 18	1 14	1 10	1 07	1 03	1	10	
	20	3 31	3 22	3 12	3 03	2 54	2 46	2 37	2 28	2 21	2 12	2 05	2	20	
	30	5 16	5 01	4 47	4 33	4 20	4 07	3 54	3 42	3 30	3 18	3 07	3	30	
	40	6 59	6 39	6 21	6 03	5 45	5 28	5 11	4 55	4 39	4 23	4 08	4	40	
	50	8 40	8 16	7 53	7 30	7 08	6 48	6 27	6 07	5 47	5 28	5 09	5	50	
1	00	10 19	9 50	9 23	8 56	8 31	8 05	7 40	7 17	6 54	6 31	6 08	1	00	
	10	11 55	11 22	10 50	10 20	9 51	9 22	8 54	8 27	7 59	7 33	7 07	1	10	
	20	13 27	12 51	12 16	11 41	11 08	10 36	10 04	9 33	9 03	8 33	8 04	2	20	
	30	14 57	14 17	13 39	13 01	12 24	11 48	11 12	10 38	10 05	9 32	9 00	2	30	
	40	16 22	15 39	14 57	14 16	13 36	12 58	12 19	11 43	11 06	10 30	9 55	3	40	
	50	17 45	16 58	16 13	15 29	14 47	14 04	13 23	12 44	12 04	11 25	10 47	3	50	
2	00	19 03	18 13	17 25	16 39	15 53	15 09	14 25	13 42	13 00	12 18	11 38	2	00	
	10	20 17	19 25	18 35	17 46	16 57	16 10	15 23	14 38	13 54	13 10	12 26	2	10	
	20	21 26	20 33	19 40	18 49	17 58	17 09	16 20	15 33	14 46	13 59	13 13	2	20	
	30	22 32	21 36	20 41	19 48	18 56	18 05	17 14	16 23	15 35	14 46	13 57	3	30	
	40	23 34	22 36	21 39	20 44	19 51	18 57	18 04	17 12	16 21	15 31	14 40	3	40	
	50	24 31	23 31	22 34	21 37	20 42	19 46	18 51	17 57	17 04	16 12	15 20	3	50	
3	00	25 23	24 23	23 24	22 25	21 28	20 32	19 36	18 41	17 46	16 51	15 58	3	00	
	10	26 13	25 11	24 11	23 11	22 13	21 15	20 17	19 21	18 24	17 28	16 33	4	10	
	20	26 57	25 55	24 54	23 53	22 54	21 55	20 56	19 58	19 00	18 03	17 07	4	20	
	30	27 35	26 36	25 34	24 32	23 32	22 31	21 31	20 32	19 33	18 36	17 38	4	30	
	40	28 15	27 11	26 09	25 07	24 05	23 05	22 04	21 04	20 04	19 05	18 06	4	40	
	50	28 49	27 44	26 42	25 39	24 37	23 35	22 34	21 33	20 32	19 32	18 32	4	50	
4	00	29 17	28 13	27 10	26 07	25 04	24 02	23 00	21 59	20 57	19 57	18 56	4	00	
	10	29 44	28 40	27 36	26 33	25 30	24 27	23 24	22 22	21 20	20 19	19 17	5	10	
	20	30 06	29 01	27 58	26 54	25 51	24 48	23 45	22 43	21 40	20 38	19 36	5	20	
	30	30 25	29 20	28 16	27 13	26 10	25 07	24 03	23 00	21 58	20 55	19 52	5	30	
	40	30 40	29 35	28 32	27 28	26 25	25 21	24 18	23 15	22 13	21 10	20 07	5	40	
	50	30 53	29 48	28 45	27 41	26 38	25 35	24 31	23 28	22 24	21 22	20 19	5	50	
5	00	31 02	29 58	28 54	27 50	26 47	25 45	24 41	23 38	22 35	21 32	20 29	5	00	
	10	31 08	30 03	29 00	27 57	26 54	25 51	24 48	23 45	22 42	21 39	20 36	6	10	
	20	31 11	30 07	29 04	28 01	26 58	25 56	24 52	23 50	22 47	21 44	20 41	6	20	
	30	31 11	30 07	29 05	28 02	26 59	25 57	24 54	23 52	22 49	21 47	20 43	6	30	
	40	31 08	30 05	29 02	28 00	26 58	25 56	24 53	23 52	22 50	21 47	20 44	6	40	
	50	31 02	29 59	28 57	27 56	26 54	25 53	24 51	23 49	22 46	21 45	20 42	6	50	
6	00	30 52	29 51	28 50	27 48	26 48	25 46	24 45	23 44	22 42	21 41	20 38	6	00	
	10	30 41	29 40	28 39	27 38	26 38	25 38	24 37	23 37	22 36	21 34	20 32	7	10	
	20	30 26	29 27	28 27	27 27	26 27	25 27	24 27	23 27	22 26	21 26	20 25	7	20	
	30	30 09	29 10	28 11	27 12	26 13	25 13	24 14	23 15	22 15	21 15	20 14	7	30	
	40	29 50	28 51	27 53	26 55	25 56	24 58	23 59	23 00	22 01	21 02	20 03	7	40	
	50	29 27	28 30	27 32	26 35	25 37	24 39	23 42	22 44	21 45	20 47	19 49	7	50	
7	00	29 02	28 06	27 09	26 12	25 15	24 18	23 22	22 25	21 27	20 30	19 33	7	00	
	10	28 35	27 39	26 43	25 47	24 52	23 56	23 00	22 04	21 08	20 12	19 14	8	10	
	20	28 04	27 10	26 15	25 21	24 26	23 31	22 35	21 41	20 46	19 51	18 55	8	20	
	30	27 32	26 38	25 45	24 51	23 57	23 03	22 10	21 16	20 22	19 28	18 32	8	30	
	40	26 57	26 05	25 12	24 20	23 27	22 34	21 42	20 49	19 56	19 03	18 10	8	40	
	50	26 20	25 28	24 37	23 45	22 54	22 02	21 11	20 20	19 28	18 37	17 44	8	50	
8	00	25 40	24 50	23 59	23 09	22 19	21 29	20 39	19 49	18 58	18 08	17 17	8	00	
	10	24 58	24 09	23 20	22 31	21 42	20 53	20 05	19 16	18 26	17 37	16 48	9	10	
	20	24 13	23 25	22 38	21 51	21 03	20 16	19 28	18 41	17 53	17 06	16 18	9	20	
	30	23 26	22 39	21 54	21 08	20 21	19 36	18 50	18 04	17 18	16 32	15 45	9	30	
	40	22 36	21 52	21 08	20 23	19 38	18 54	18 09	17 26	16 41	15 56	15 12	9	40	
	50	21 45	21 02	20 19	19 36	18 53	18 11	17 28	16 45	16 02	15 19	14 36	9	50	
9	00	20 51	20 10	19 29	18 47	18 06	17 25	16 44	16 03	15 21	14 41	13 59	9	00	
	10	19 56	19 16	18 36	17 55	17 16	16 38	15 59	15 19	14 40	14 01	13 22	10	10	
	20	18 58	18 19	17 42	17 04	16 26	15 49	15 11	14 35	13 57	13 20	12 41	10	20	
	30	17 58	17 22	16 45	16 10	15 34	14 59	14 23	13 48	13 12	12 37	12 01	10	30	
	40	16 55	16 21	15 47	15 13	14 40	14 06	13 33	12 59	12 26	11 53	11 19	10	40	
	50	15 52	15 20	14 47	14 16	13 44	13 12	12 41	12 10	11 38	11 07	10 35	10	50	
10	00	14 46	14 16	13 46	13 16	12 46	12 18	11 48	11 19	10 50	10 20	9 51	10	00	
	10	13 38	13 11	12 43	12 15	11 48	11 21	10 54	10 27	10 00	9 33	9 05	11	10	
	20	12 30	12 04	11 38	11 13	10 48	10 24	9 59	9 34	9 09	8 44	8 20	11	20	
	30	11 19	10 56	10 33	10 09	9 47	9 24	9 01	8 40	8 17	7 54	7 32	11	30	
	40	10 07	9 46	9 26	9 05	8 44	8 25	8 04	7 44	7 24	7 04	6 44	11	40	
	50	8 54	8 36	8 18	8 00	7 41	7 24	7 06	6 49	6 31	6 13	5 55	11	50	
11	00	7 40	7 24	7 09	6 52	6 37	6 22	6 06	5 52	5 36	5 21	5 05	11	00	
	10	6 25	6 11	5 58	5 45	5 32	5 20	5 06	4 54	4 41	4 28	4 16	12	10	
	20	5 09	4 58	4 48	4 37	4 26	4 16	4 06	3 55	3 45	3 35	3 25	12	20	
	30	3 52	3 44	3 36	3 28	3 20	3 13	3 05	2 57	2 49	2 41	2 34	12	30	
	40	2 35	2 30	2 25	2 19	2 13	2 08	2 03	1 58	1 53	1 48	1 43	12	40	
	50	1 18	1 15	1 12	1 10	1 07	1 05	1 02	1 00	0 57	0 54	0 51	12	50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 16°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 16°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	°	'	°	'	°	'	°	'	°	'	°	'	°	'
		0	00	0	00	0	00	0	00	0	00	0	00	0	00
0	00	0	00	0	00	0	00	0	00	0	00	0	00	0	00
0	10	16	07	14	10	12	43	11	30	10	29	8	13	6	15
0	20	29	37	26	39	24	10	22	03	20	13	18	39	17	16
0	30	42	09	36	44	33	43	31	05	28	46	26	41	24	51
0	40	47	58	44	29	41	21	38	30	35	56	33	36	31	30
0	50	53	43	50	24	47	18	44	26	41	49	39	22	37	08
1	00	58	00	54	53	51	57	49	10	46	36	44	09	41	52
1	10	61	14	58	21	55	36	52	57	50	28	48	05	45	50
1	20	63	42	61	03	58	28	55	59	53	37	51	19	49	08
1	30	65	38	63	10	60	46	58	26	56	11	53	59	51	52
1	40	67	08	64	51	62	36	60	25	58	17	56	11	54	10
1	50	68	19	66	11	64	05	62	01	60	00	58	01	56	05
2	00	69	16	67	16	65	18	63	20	61	25	59	32	57	41
2	10	70	01	68	07	66	14	64	24	62	35	59	01	57	17
2	20	70	35	68	48	67	02	65	17	63	34	61	51	60	09
2	30	71	02	69	20	67	39	66	00	64	21	62	42	61	05
2	40	71	21	69	46	68	09	66	34	65	00	63	25	61	52
2	50	71	36	70	04	68	32	67	01	65	30	64	00	62	30
3	00	71	45	70	17	68	50	67	22	65	55	64	27	63	00
3	10	71	50	70	26	69	01	67	37	66	13	64	49	63	25
3	20	71	52	70	32	69	10	67	48	66	27	65	06	63	45
3	30	71	50	70	32	69	13	67	54	66	37	65	18	63	59
3	40	71	46	70	30	69	14	67	57	66	41	65	25	64	09
3	50	71	39	70	25	69	11	67	57	66	42	65	29	64	15
4	00	71	28	70	17	69	05	67	53	66	41	65	29	64	17
4	10	71	17	70	07	68	56	67	46	66	36	65	26	64	16
4	20	71	02	69	54	68	45	67	37	66	28	65	20	64	11
4	30	70	46	69	39	68	32	67	25	66	17	65	10	64	04
4	40	70	27	69	22	68	16	67	11	66	05	64	59	63	52
4	50	70	08	69	03	67	59	66	54	65	50	64	45	63	40
5	00	69	43	68	41	67	38	66	34	65	32	64	28	63	25
5	10	69	20	68	18	67	16	66	13	65	11	64	08	63	06
5	20	68	54	67	53	66	51	65	50	64	49	63	47	62	45
5	30	68	26	67	26	66	24	65	24	64	24	63	23	62	22
5	40	67	55	66	56	65	56	64	56	63	56	62	57	61	57
5	50	67	24	66	25	65	26	64	26	63	27	62	28	61	28
6	00	66	49	65	52	64	53	63	54	62	56	61	57	60	58
6	10	66	13	65	16	64	18	63	20	62	22	61	24	60	26
6	20	65	36	64	39	63	41	62	43	61	45	60	48	59	50
6	30	64	56	63	58	63	01	62	03	61	06	60	10	59	13
6	40	64	12	63	16	62	19	61	22	60	25	59	29	58	32
6	50	63	27	62	31	61	34	60	37	59	41	58	45	57	48
7	00	62	39	61	43	60	47	59	51	58	54	57	59	57	03
7	10	61	49	60	53	59	57	58	05	57	09	56	13	55	17
7	20	60	57	60	01	59	04	58	08	57	12	56	17	55	21
7	30	60	00	59	04	58	08	57	13	56	17	55	22	54	27
7	40	59	00	58	05	57	09	56	13	55	18	54	23	53	31
7	50	57	57	57	01	56	05	55	10	54	15	53	21	52	36
8	00	56	50	55	55	54	59	54	04	53	09	52	15	51	21
8	10	55	40	54	44	53	49	52	00	51	05	50	11	50	26
8	20	54	25	53	30	52	34	51	40	49	51	48	57	48	05
8	30	53	05	52	11	51	15	50	21	49	27	48	34	47	40
8	40	51	41	50	47	49	51	48	57	48	03	47	11	46	18
8	50	50	12	49	17	48	23	47	29	46	36	45	44	44	00
9	00	48	37	47	43	46	48	45	55	45	03	44	11	43	20
9	10	46	57	46	03	45	09	44	16	43	24	42	33	41	42
9	20	45	10	44	16	43	23	42	31	41	40	40	50	40	00
9	30	43	16	42	23	41	31	40	40	39	50	39	01	38	12
9	40	41	16	40	24	39	33	38	42	37	54	37	05	36	18
9	50	39	08	38	17	37	27	36	39	35	51	35	04	34	18
10	00	36	52	36	04	35	15	34	28	33	42	32	13	31	30
10	10	34	28	33	41	32	55	32	09	31	25	30	43	29	19
10	20	31	57	31	12	30	28	29	45	29	03	28	22	27	04
10	30	29	16	28	35	27	54	27	13	26	33	25	55	25	18
10	40	26	28	25	49	25	10	24	33	23	22	22	48	22	11
10	50	23	32	22	55	22	21	21	46	20	14	20	11	19	41
11	00	20	26	19	55	19	24	18	53	18	25	17	57	17	29
11	10	17	15	16	47	16	21	15	55	15	31	15	06	14	43
11	20	13	57	13	34	13	12	12	51	12	11	11	52	11	33
11	30	10	32	10	15	9	58	9	43	9	27	8	57	8	43
11	40	7	04	6	53	6	41	6	31	6	20	6	10	6	00
11	50	3	33	3	27	3	21	3	16	3	11	3	06	3	00
12	00	0	00	0	00	0	00	0	00	0	00	0	00	0	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 16°.				DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 16°.			
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.					
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.				
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00				
	10	5 54	5 33	5 14	4 58	4 42	4 27	4 14	4 01	3 49	3 39	3 28	3 18		10				
	20	11 37	10 58	10 22	9 48	9 18	8 50	8 23	7 59	7 36	7 14	6 54	6 35		20				
	30	17 04	16 09	15 17	14 29	13 45	13 04	12 26	11 50	11 16	10 45	9 15	9 47		30				
	40	22 08	20 59	19 54	18 54	17 59	17 07	16 17	15 32	14 48	14 07	13 30	12 53		40				
	50	26 46	25 26	24 11	23 01	21 55	20 55	19 57	19 02	18 10	17 22	16 35	15 52		50				
1	00	30 55	29 28	28 06	26 48	25 35	24 27	23 21	22 20	21 21	20 25	19 32	18 42	1	00				
	10	34 38	33 05	31 38	30 15	28 56	27 42	26 31	25 24	24 19	23 18	22 19	21 23		10				
	20	37 54	36 19	34 48	33 22	31 59	30 40	29 25	28 13	27 03	25 58	24 55	23 54		20				
	30	40 46	39 11	37 38	36 09	34 44	33 23	32 04	30 49	29 36	28 27	27 20	26 15		30				
	40	43 18	41 41	40 09	38 38	37 11	35 49	34 28	33 11	31 55	30 43	29 33	28 26		40				
	50	45 29	43 54	42 21	40 50	39 24	38 00	36 37	35 18	34 02	32 47	31 35	30 26		50				
2	00	47 25	45 50	44 18	42 48	41 21	39 57	38 34	37 14	35 56	34 41	33 27	32 16	2	00				
	10	49 05	47 32	46 01	44 33	43 06	41 42	40 19	38 59	37 41	36 24	35 09	33 56		10				
	20	50 31	49 01	47 31	46 04	44 39	43 15	41 52	40 33	39 15	37 57	36 41	35 28		20				
	30	51 46	50 18	48 50	47 24	46 00	44 37	43 16	41 56	40 38	39 21	38 05	36 51		30				
	40	52 51	51 24	49 59	48 34	47 11	45 50	44 29	43 10	41 53	40 36	39 21	38 06		40				
	50	53 46	52 22	50 58	49 35	48 14	46 53	45 34	44 16	42 58	41 43	40 28	39 14		50				
3	00	54 33	53 10	51 49	50 28	49 08	47 49	46 31	45 13	43 57	42 42	41 28	40 14	3	00				
	10	55 13	53 53	52 33	51 13	49 55	48 38	47 21	46 04	44 48	43 34	42 21	41 07		10				
	20	55 47	54 28	53 10	51 52	50 35	49 20	48 03	46 49	45 33	44 20	43 07	41 55		20				
	30	56 13	54 57	53 41	52 25	51 09	49 55	48 40	47 27	46 12	44 59	43 47	42 36		30				
	40	56 35	55 21	54 06	52 52	51 38	50 24	49 11	47 58	46 46	45 34	44 22	43 11		40				
	50	56 53	55 39	54 27	53 13	52 01	50 48	49 37	48 25	47 14	46 03	44 53	43 42		50				
4	00	57 05	55 53	54 42	53 30	52 19	51 09	49 57	48 47	47 37	46 27	45 16	44 07	4	00				
	10	57 13	56 03	54 53	53 42	52 33	51 24	50 14	49 04	47 55	46 46	45 37	44 28		10				
	20	57 18	56 10	55 00	53 51	52 43	51 34	50 26	49 17	48 08	47 01	45 53	44 45		20				
	30	57 18	56 11	55 04	53 55	52 48	51 41	50 33	49 26	48 19	47 12	46 04	44 57		30				
	40	57 16	56 10	55 03	53 57	52 51	51 43	50 37	49 31	48 25	47 18	46 12	45 06		40				
	50	57 10	56 05	54 59	53 54	52 49	51 43	50 37	49 32	48 26	47 21	46 16	45 10		50				
5	00	57 01	55 56	54 52	53 47	52 43	51 38	50 34	49 30	48 25	47 20	46 16	45 11	5	00				
	10	56 49	55 45	54 42	53 38	52 35	51 32	50 28	49 24	48 20	47 17	46 13	45 09		10				
	20	56 33	55 31	54 28	53 26	52 23	51 21	50 18	49 15	48 12	47 09	46 07	45 03		20				
	30	56 16	55 14	54 12	53 10	52 08	51 07	50 04	49 03	48 01	46 58	45 56	44 54		30				
	40	55 55	54 53	53 53	52 52	51 50	50 49	49 48	48 47	47 46	46 44	45 43	44 42		40				
	50	55 31	54 30	53 30	52 30	51 30	50 30	49 30	48 29	47 29	46 28	45 28	44 26		50				
6	00	55 05	54 05	53 06	52 06	51 07	50 07	49 08	48 08	47 07	46 08	45 08	44 08	6	00				
	10	54 35	53 36	52 38	51 38	50 40	49 41	48 42	47 43	46 44	45 44	44 46	43 46		10				
	20	54 04	53 06	52 07	51 09	50 10	49 13	48 14	47 16	46 17	45 18	44 20	43 22		20				
	30	53 29	52 32	51 34	50 36	49 39	48 41	47 43	46 46	45 48	44 50	43 52	42 54		30				
	40	52 52	51 54	50 57	50 00	49 03	48 06	47 09	46 12	45 15	44 18	43 21	42 24		40				
	50	52 10	51 14	50 18	49 21	48 25	47 29	46 32	45 36	44 40	43 43	42 47	41 50		50				
7	00	51 27	50 31	49 35	48 40	47 44	46 48	45 52	44 57	44 01	43 05	42 09	41 14	7	00				
	10	50 40	49 46	48 50	47 54	46 59	46 05	45 09	44 15	43 19	42 24	41 29	40 35		10				
	20	49 52	48 56	48 02	47 07	46 12	45 18	44 23	43 29	42 35	41 40	40 47	39 52		20				
	30	48 59	48 04	47 10	46 16	45 21	44 28	43 34	42 40	41 47	40 54	40 01	39 06		30				
	40	48 03	47 09	46 15	45 22	44 28	43 35	42 42	41 49	40 56	40 04	39 12	38 18		40				
	50	47 04	46 10	45 17	44 24	43 32	42 39	41 47	40 54	40 03	39 10	38 19	37 27		50				
8	00	46 00	45 08	44 15	43 23	42 31	41 40	40 47	39 57	39 05	38 14	37 23	36 33	8	00				
	10	44 54	44 03	43 10	42 19	41 27	40 37	39 46	38 56	38 05	37 14	36 25	35 35		10				
	20	43 44	42 53	42 02	41 10	40 21	39 30	38 40	37 50	37 00	36 12	35 23	34 34		20				
	30	42 29	41 39	40 48	39 59	39 09	38 19	37 31	36 42	35 53	35 06	34 18	33 30		30				
	40	41 11	40 22	39 32	38 43	37 55	37 06	36 18	35 30	34 44	33 56	33 09	32 23		40				
	50	39 49	39 00	38 12	37 24	36 36	35 49	35 02	34 15	33 28	32 43	31 58	31 13		50				
9	00	38 22	37 34	36 47	36 00	35 14	34 28	33 41	32 57	32 11	31 26	30 42	29 58	9	00				
	10	36 51	36 04	35 17	34 32	33 47	33 02	32 17	31 34	30 50	30 07	29 24	28 42		10				
	20	35 16	34 30	33 45	33 00	32 17	31 32	30 50	30 07	29 26	28 44	28 03	27 21		20				
	30	33 35	32 51	32 08	31 24	30 42	30 00	29 19	28 38	27 57	27 17	26 38	25 59		30				
	40	31 50	31 08	30 25	29 44	29 03	28 23	27 43	27 04	26 25	25 47	25 10	24 32		40				
	50	30 00	29 19	28 39	27 59	27 20	26 43	26 05	25 28	24 51	24 14	23 38	23 02		50				
10	00	28 05	27 27	26 48	26 11	25 34	24 57	24 21	23 46	23 11	22 38	22 03	21 30	10	00				
	10	26 05	25 29	24 53	24 18	23 43	23 09	22 35	22 02	21 29	20 57	20 25	19 43		10				
	20	24 02	23 28	22 54	22 21	21 49	21 17	20 45	20 15	19 44	19 14	18 45	18 16		20				
	30	21 53	21 21	20 50	20 19	19 50	19 21	18 51	18 24	17 55	17 28	17 02	16 35		30				
	40	19 40	19 11	18 42	18 15	17 47	17 21	16 55	16 30	16 04	15 39	15 15	14 51		40				
	50	17 23	16 56	16 31	16 06	15 42	15 19	14 55	14 32	14 10	13 48	13 26	13 05		50				
11	00	15 02	14 39	14 16	13 55	13 33	13 14	12 53	12 33	12 14	11 55	11 35	11 17	11	00				
	10	12 37	12 17	11 58	11 40	11 22	11 05	10 48	10 31	10 15	9 59	9 42	9 27		10				
	20	10 09	9 54	9 39	9 23	9 09	8 55	8 41	8 27	8 14	8 01	7 48	7 36		20				
	30	7 39	7 27	7 16	7 04	6 54	6 43	6 32	6 22	6 12	6 01	5 52	5 43		30				
	40	5 07	4 59	4 52	4 44	4 37	4 29	4 22	4 16	4 09	4 02	3 55	3 49		40				
	50	2 33	2 30	2 26	2 22	2 18	2 15	2 12	2 08	2 04	2								

AZIMUTH OR TRUE BEARING.

LATITUDE 16°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 16°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	3 09	3 00	2 52	2 45	2 37	2 30	2 23	2 17	2 10	2 04	1 59	1 53	0	10
0	20	6 16	5 59	5 43	5 27	5 13	4 58	4 45	4 33	4 20	4 08	3 56	3 46	0	20
0	30	9 20	8 55	8 31	8 08	7 46	7 26	7 05	6 46	6 28	6 10	5 54	5 38	0	30
0	40	12 18	11 46	11 14	10 44	10 16	9 49	9 23	8 58	8 34	8 10	7 48	7 27	0	40
0	50	15 10	14 30	13 53	13 16	12 41	12 08	11 37	11 05	10 36	10 08	9 41	9 14	0	50
1	00	17 54	17 08	16 24	15 42	15 01	14 23	13 46	13 10	12 36	12 02	11 30	10 59	1	00
1	10	20 30	19 38	18 49	18 02	17 16	16 32	15 50	15 10	14 30	13 53	13 16	12 41	1	10
1	20	22 56	21 59	21 06	20 14	19 24	18 35	17 50	17 04	16 20	15 39	14 58	14 18	1	20
1	30	25 12	24 12	23 15	22 19	21 25	20 33	19 43	18 54	18 06	17 21	16 37	15 53	1	30
1	40	27 20	26 17	25 16	24 16	23 19	22 23	21 30	20 37	19 46	18 58	18 10	17 23	1	40
1	50	29 17	28 12	27 08	26 06	25 06	24 07	23 10	22 16	21 22	20 29	19 38	18 49	1	50
2	00	31 06	29 59	28 52	27 48	26 46	25 44	24 46	23 47	22 51	21 57	21 03	20 10	2	00
2	10	32 45	31 36	30 28	29 22	28 18	27 15	26 14	25 14	24 15	23 18	22 22	21 27	2	10
2	20	34 16	33 06	31 57	30 50	29 44	28 39	27 36	26 34	25 34	24 35	23 36	22 40	2	20
2	30	35 39	34 28	33 17	32 09	31 03	29 56	28 52	27 48	26 47	25 46	24 46	23 48	2	30
2	40	36 53	35 42	34 31	33 22	32 14	31 07	30 02	28 58	27 51	26 52	25 51	24 50	2	40
2	50	38 01	36 49	35 39	34 29	33 20	32 13	31 07	30 01	28 56	27 53	26 51	25 49	2	50
3	00	39 01	37 49	36 39	35 29	34 20	33 11	32 04	30 58	29 54	28 49	27 45	26 44	3	00
3	10	39 55	38 44	37 33	36 23	35 14	34 06	32 58	31 51	30 46	29 40	28 36	27 33	3	10
3	20	40 43	39 31	38 21	37 11	36 02	34 53	33 46	32 39	31 32	30 27	29 22	28 18	3	20
3	30	41 24	40 13	39 04	37 54	36 45	35 36	34 29	33 22	32 15	31 10	30 04	28 59	3	30
3	40	42 00	40 50	39 41	38 32	37 23	36 15	35 07	34 00	32 53	31 47	30 42	29 37	3	40
3	50	42 32	41 23	40 13	39 04	37 56	36 48	35 41	34 33	33 27	32 20	31 14	30 09	3	50
4	00	42 58	41 49	40 41	39 32	38 24	37 17	36 10	35 03	33 56	32 50	31 44	30 39	4	00
4	10	43 20	42 12	41 04	39 56	38 49	37 41	36 34	35 27	34 21	33 15	32 09	31 04	4	10
4	20	43 37	42 29	41 22	40 15	39 08	38 01	36 55	35 48	34 42	33 36	32 30	31 25	4	20
4	30	43 51	42 43	41 37	40 30	39 24	38 18	37 12	36 05	35 00	33 54	32 49	31 44	4	30
4	40	44 00	42 54	41 48	40 41	39 35	38 30	37 24	36 19	35 14	34 09	33 04	31 59	4	40
4	50	44 05	43 00	41 54	40 49	39 44	38 39	37 34	36 28	35 24	34 19	33 14	32 10	4	50
5	00	44 07	43 02	41 58	40 53	39 49	38 44	37 39	36 35	35 31	34 26	33 22	32 18	5	00
5	10	44 05	43 01	41 57	40 53	39 49	38 45	37 41	36 37	35 34	34 31	33 26	32 23	5	10
5	20	44 00	42 57	41 54	40 51	39 47	38 44	37 40	36 37	35 35	34 31	33 28	32 24	5	20
5	30	43 52	42 50	41 47	40 44	39 41	38 39	37 36	36 34	35 31	34 28	33 25	32 22	5	30
5	40	43 40	42 38	41 37	40 35	39 33	38 32	37 29	36 27	35 25	34 23	33 21	32 18	5	40
5	50	43 26	42 24	41 23	40 22	39 21	38 20	37 19	36 17	35 15	34 14	33 12	32 11	5	50
6	00	43 08	42 07	41 07	40 06	39 06	38 06	37 06	36 04	35 04	34 03	33 02	32 00	6	00
6	10	42 47	41 47	40 48	39 47	38 48	37 48	36 48	35 48	34 48	33 48	32 48	31 48	6	10
6	20	42 23	41 24	40 25	39 27	38 27	37 29	36 29	35 29	34 30	33 31	32 32	31 32	6	20
6	30	41 56	40 58	40 00	39 02	38 04	37 05	36 07	35 08	34 09	33 10	32 12	31 14	6	30
6	40	41 27	40 29	39 32	38 34	37 37	36 40	35 42	34 44	33 46	32 48	31 50	30 53	6	40
6	50	40 54	39 58	39 00	38 04	37 07	36 11	35 14	34 16	33 19	32 23	31 26	30 28	6	50
7	00	40 18	39 23	38 26	37 31	36 34	35 38	34 42	33 46	32 51	31 54	30 58	30 02	7	00
7	10	39 39	38 44	37 50	36 55	35 59	35 04	34 09	33 13	32 19	31 23	30 28	29 32	7	10
7	20	38 58	38 04	37 10	36 15	35 20	34 27	33 33	32 39	31 45	30 50	29 55	29 02	7	20
7	30	38 13	37 20	36 26	35 33	34 40	33 47	32 54	32 00	31 07	30 13	29 21	28 27	7	30
7	40	37 26	36 33	35 41	34 49	33 57	33 04	32 12	31 19	30 28	29 35	28 43	27 50	7	40
7	50	36 36	35 44	34 52	34 00	33 09	32 19	31 28	30 36	29 45	28 53	28 02	27 11	7	50
8	00	35 41	34 51	34 00	33 10	32 19	31 30	30 40	29 49	29 00	28 09	27 20	26 30	8	00
8	10	34 45	33 56	33 06	32 17	31 28	30 39	29 50	29 00	28 11	27 22	26 34	25 46	8	10
8	20	33 46	32 56	32 09	31 20	30 32	29 45	28 57	28 09	27 21	26 34	25 46	25 00	8	20
8	30	32 43	31 55	31 09	30 21	29 34	28 48	28 02	27 14	26 28	25 41	24 56	24 11	8	30
8	40	31 37	30 51	30 05	29 19	28 33	27 48	27 03	26 17	25 33	24 48	24 04	23 20	8	40
8	50	30 28	29 42	28 59	28 14	27 30	26 46	26 03	25 18	24 36	23 52	23 09	22 27	8	50
9	00	29 15	28 32	27 49	27 05	26 23	25 42	24 59	24 17	23 35	22 53	22 11	21 30	9	00
9	10	28 00	27 17	26 37	25 55	25 14	24 33	23 53	23 11	22 32	21 52	21 12	20 33	9	10
9	20	26 41	26 01	25 21	24 41	24 01	23 23	22 44	22 05	21 27	20 48	20 10	19 33	9	20
9	30	25 19	24 41	24 03	23 25	22 47	22 10	21 33	20 56	20 19	19 43	19 06	18 31	9	30
9	40	23 55	23 18	22 42	22 06	21 30	20 55	20 20	19 44	19 09	18 35	18 01	17 27	9	40
9	50	22 27	21 53	21 18	20 44	20 10	19 37	19 04	18 30	17 58	17 25	16 53	16 21	9	50
10	00	20 56	20 24	19 52	19 20	18 48	18 17	17 45	17 14	16 44	16 14	15 44	15 14	10	00
10	10	19 23	18 52	18 22	17 52	17 23	16 54	16 25	15 55	15 28	14 59	14 31	14 03	10	10
10	20	17 47	17 19	16 51	16 24	15 57	15 29	15 03	14 35	14 10	13 44	13 18	12 52	10	20
10	30	16 08	15 43	15 17	14 52	14 27	14 02	13 38	13 14	12 51	12 27	12 03	11 40	10	30
10	40	14 27	14 04	13 41	13 19	12 56	12 34	12 12	11 50	11 29	11 07	10 47	10 26	10	40
10	50	12 44	12 23	12 03	11 43	11 23	11 03	10 44	10 25	10 07	9 47	9 29	9 10	10	50
11	00	10 59	10 41	10 23	10 06	9 49	9 32	9 15	8 59	8 42	8 26	8 10	7 54	11	00
11	10	9 12	8 56	8 42	8 27	8 13	7 59	7 44	7 31	7 17	7 03	6 50	6 36	11	10
11	20	7 26	7 11	6 59	6 48	6 36	6 24	6 13	6 02	5 51	5 40	5 29	5 18	11	20
11	30	5 34	5 24	5 16	5 07	4 58	4 49	4 40	4 32	4 24	4 16	4 07	3 59	11	30
11	40	3 43	3 37	3 31	3 25	3 19	3 13	3 07	3 01	2 57	2 51	2 46	2 40	11	40
11	50	1 52	1 49	1 46	1 43	1 40	1 37	1 34	1 31	1 28	1 25	1 22	1 20	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 16°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 16°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.				
h.	m.	°	'	°	'	°	'	°	'	°	'	°	'	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	1 48	1 42	1 38	1 33	1 28	1 23	1 20	1 15	1 11	1 07	1 04	1 04		10		
	20	3 35	3 25	3 15	3 06	2 56	2 48	2 39	2 31	2 22	2 15	2 06	2 06		20		
	30	5 22	5 06	4 52	4 38	4 24	4 11	3 58	3 45	3 32	3 21	3 11	3 11		30		
	40	7 07	6 47	6 27	6 09	5 51	5 33	5 16	4 58	4 42	4 27	4 12	4 12		40		
	50	8 48	8 24	8 00	7 37	7 15	6 53	6 32	6 11	5 51	5 31	5 12	5 12		50		
1	00	10 29	10 00	9 31	9 04	8 38	8 12	7 47	7 23	6 59	6 35	6 13	6 13	1	00		
	10	12 06	11 33	11 01	10 29	9 59	9 30	9 01	8 33	8 06	7 38	7 13	7 13		10		
	20	13 40	13 04	12 27	11 51	11 18	10 45	10 13	9 40	9 10	8 40	8 10	8 10		20		
	30	15 11	14 30	13 50	13 12	12 34	11 57	11 22	10 47	10 13	9 40	9 07	9 07		30		
	40	16 38	15 53	15 11	14 28	13 48	13 08	12 29	11 51	11 14	10 37	10 01	10 01		40		
	50	18 00	17 13	16 27	15 42	14 59	14 16	13 33	12 53	12 13	11 33	10 55	10 55		50		
2	00	19 19	18 29	17 40	16 53	16 06	15 20	14 36	13 52	13 09	12 27	11 46	11 46	2	00		
	10	20 34	19 41	18 50	17 59	17 11	16 22	15 35	14 48	14 03	13 18	12 34	12 34		10		
	20	21 44	20 49	19 55	19 03	18 11	17 21	16 32	15 43	14 56	14 08	13 22	13 22		20		
	30	22 50	21 53	20 58	20 03	19 10	18 17	17 26	16 34	15 44	14 55	14 06	14 06		30		
	40	23 51	22 53	21 55	21 00	20 04	19 09	18 16	17 23	16 31	15 39	14 49	14 49		40		
	50	24 48	23 49	22 50	21 52	20 55	19 59	19 04	18 08	17 15	16 21	15 29	15 29		50		
3	00	25 41	24 40	23 40	22 41	21 43	20 45	19 49	18 52	17 57	17 01	16 08	16 08	3	00		
	10	26 30	25 28	24 27	23 27	22 27	21 28	20 30	19 33	18 36	17 38	16 43	16 43		10		
	20	27 15	26 12	25 10	24 09	23 08	22 08	21 08	20 09	19 11	18 13	17 16	17 16		20		
	30	27 55	26 52	25 49	24 47	23 45	22 44	21 43	20 44	19 44	18 46	17 47	17 47		30		
	40	28 32	27 28	26 24	25 22	24 19	23 17	22 16	21 15	20 15	19 15	18 15	18 15		40		
	50	29 04	28 00	26 56	25 53	24 50	23 47	22 46	21 44	20 43	19 42	18 41	18 41		50		
4	00	29 34	28 29	27 25	26 21	25 17	24 14	23 12	22 10	21 08	20 06	19 05	19 05	4	00		
	10	29 58	28 54	27 49	26 45	25 41	24 38	23 35	22 32	21 30	20 28	19 26	19 26		10		
	20	30 20	29 16	28 11	27 07	26 03	24 59	23 56	22 53	21 50	20 47	19 45	19 45		20		
	30	30 39	29 34	28 29	27 25	26 21	25 17	24 13	23 10	22 07	21 04	20 02	20 02		30		
	40	30 53	29 49	28 44	27 40	26 36	25 32	24 29	23 25	22 21	21 18	20 16	20 16		40		
	50	31 05	30 01	28 56	27 52	26 48	25 44	24 41	23 36	22 33	21 30	20 27	20 27		50		
5	00	31 13	30 10	29 05	28 02	26 57	25 54	24 50	23 46	22 43	21 39	20 36	20 36	5	00		
	10	31 19	30 15	29 11	28 07	27 04	26 00	24 57	23 54	22 50	21 46	20 43	20 43		10		
	20	31 21	30 17	29 13	28 10	27 07	26 04	25 01	23 57	22 55	21 51	20 47	20 47		20		
	30	31 19	30 16	29 13	28 10	27 08	26 05	25 03	24 00	22 57	21 54	20 51	20 51		30		
	40	31 16	30 13	29 11	28 09	27 06	26 04	25 02	23 58	22 56	21 53	20 50	20 50		40		
	50	31 09	30 07	29 05	28 03	27 01	26 00	24 58	23 55	22 54	21 51	20 48	20 48		50		
6	00	30 59	29 58	28 56	27 55	26 54	25 53	24 51	23 50	22 48	21 46	20 44	20 44	6	00		
	10	30 47	29 47	28 46	27 45	26 45	25 44	24 43	23 42	22 41	21 39	20 38	20 38		10		
	20	30 32	29 33	28 32	27 33	26 32	25 32	24 32	23 31	22 31	21 30	20 30	20 30		20		
	30	30 14	29 15	28 15	27 17	26 17	25 18	24 19	23 19	22 20	21 20	20 19	20 19		30		
	40	29 54	28 56	27 57	26 58	26 00	25 01	24 03	23 04	22 05	21 06	20 07	20 07		40		
	50	29 31	28 33	27 35	26 38	25 40	24 43	23 45	22 47	21 49	20 51	19 52	19 52		50		
7	00	29 05	28 09	27 12	26 15	25 19	24 23	23 25	22 28	21 31	20 33	19 36	19 36	7	00		
	10	28 37	27 42	26 46	25 50	24 54	23 58	23 03	22 07	21 11	20 14	19 18	19 18		10		
	20	28 06	27 12	26 17	25 23	24 28	23 33	22 39	21 44	20 49	19 53	18 58	18 58		20		
	30	27 34	26 40	25 47	24 53	23 59	23 06	22 11	21 17	20 24	19 30	18 35	18 35		30		
	40	26 58	26 06	25 13	24 21	23 28	22 35	21 43	20 50	19 58	19 05	18 11	18 11		40		
	50	26 20	25 29	24 38	23 46	22 54	22 03	21 13	20 21	19 29	18 38	17 47	17 47		50		
8	00	25 40	24 49	23 59	23 09	22 20	21 29	20 40	19 50	19 00	18 08	17 18	17 18	8	00		
	10	24 57	24 08	23 20	22 31	21 43	20 53	20 05	19 16	18 28	17 39	16 50	16 50		10		
	20	24 12	23 25	22 37	21 49	21 03	20 16	19 29	18 40	17 54	17 06	16 19	16 19		20		
	30	23 24	22 39	21 52	21 07	20 21	19 36	18 50	18 03	17 18	16 32	15 47	15 47		30		
	40	22 35	21 50	21 06	20 22	19 38	18 54	18 10	17 25	16 41	15 56	15 12	15 12		40		
	50	21 43	21 00	20 17	19 35	18 52	18 09	17 28	16 44	16 02	15 19	14 37	14 37		50		
9	00	20 50	20 08	19 26	18 46	18 05	17 24	16 44	16 03	15 22	14 41	14 10	14 10	9	00		
	10	19 54	19 14	18 34	17 55	17 15	16 37	15 58	15 19	14 40	14 00	13 22	13 22		10		
	20	18 55	18 17	17 40	17 03	16 25	15 47	15 11	14 33	13 56	13 20	12 42	12 42		20		
	30	17 55	17 18	16 43	16 08	15 32	14 57	14 22	13 47	13 12	12 36	12 01	12 01		30		
	40	16 52	16 19	15 44	15 12	14 38	14 05	13 31	12 58	12 25	11 52	11 19	11 19		40		
	50	15 49	15 17	14 45	14 14	13 42	13 11	12 40	12 08	11 38	11 07	10 36	10 36		50		
10	00	14 43	14 13	13 44	13 15	12 45	12 16	11 47	11 18	10 49	10 20	9 51	9 51	10	00		
	10	13 36	13 06	12 40	12 14	11 46	11 19	10 53	10 26	9 59	9 32	9 06	9 06		10		
	20	12 27	12 02	11 36	11 12	10 46	10 22	9 57	9 32	9 08	8 43	8 19	8 19		20		
	30	11 17	10 54	10 30	10 08	9 45	9 23	9 01	8 39	8 16	7 54	7 32	7 32		30		
	40	10 04	9 44	9 24	9 04	8 43	8 23	8 03	7 43	7 24	7 04	6 43	6 43		40		
	50	8 52	8 34	8 15	7 58	7 40	7 22	7 05	6 47	6 30	6 12	5 54	5 54		50		
11	00	7 38	7 22	7 07	6 51	6 36	6 21	6 06	5 50	5 36	5 21	5 06	5 06	11	00		
	10	6 23	6 10	5 57	5 44	5 31	5 18	5 05	4 53	4 40	4 27	4 16	4 16		10		
	20	5 07	4 57	4 47	4 36	4 25	4 15	4 06	3 55	3 45	3 35	3 24	3 24		20		
	30	3 51	3 43	3 36	3 28	3 19	3 12	3 04	2 57	2 49	2 42	2 34	2 34		30		
	40	2 35	2 29	2 23	2 18	2 13	2 08	2 03	1 58	1 52	1 48	1 43	1 43		40		
	50	1 17	1 15	1 12	1 09	1 07	1 04	1 02	0 59	0 57	0 53	0 51	0 51		50		
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00		

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East, and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 17°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 17°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	18 05	15 50	14 03	12 36	11 24	10 24	9 31	8 46	8 08	7 33	7 02	6 36	0	10
0	20	32 56	29 24	26 28	23 59	21 51	20 03	18 29	17 05	15 53	14 45	13 51	12 58	0	20
0	30	43 51	39 54	36 29	33 28	30 50	28 31	26 28	24 38	22 59	21 31	20 11	18 58	0	30
0	40	51 34	47 42	44 13	41 04	38 13	35 39	33 19	31 13	29 17	27 32	25 56	24 29	0	40
0	50	57 03	53 27	50 07	47 00	44 08	41 30	39 04	36 49	34 45	32 49	31 03	29 24	0	50
1	00	61 01	57 43	54 36	51 38	48 51	46 15	43 49	41 32	39 24	37 23	35 31	33 45	1	00
1	10	63 58	60 59	58 03	55 16	52 38	50 07	47 44	45 28	43 20	41 19	39 24	37 36	1	10
1	20	66 11	63 25	60 44	58 08	55 39	53 15	50 57	48 45	46 39	44 39	42 44	40 55	1	20
1	30	67 52	65 20	62 51	60 26	57 05	55 49	53 37	51 29	49 27	47 29	45 35	43 46	1	30
1	40	69 10	66 50	64 31	62 16	60 03	57 54	55 48	53 47	51 45	49 54	48 02	46 15	1	40
1	50	70 11	68 00	65 51	63 44	61 39	59 37	57 37	55 40	53 46	51 55	50 07	48 23	1	50
2	00	70 58	68 55	66 54	64 55	62 57	61 01	59 08	57 16	55 26	53 40	51 55	50 13	2	00
2	10	71 34	69 39	67 45	65 53	64 00	62 11	60 23	58 35	56 51	55 08	53 27	51 48	2	10
2	20	72 00	70 12	68 26	66 38	64 52	63 08	61 24	59 42	58 01	56 22	54 44	53 08	2	20
2	30	72 20	70 38	68 56	67 14	65 34	63 54	62 16	60 38	59 01	57 26	55 51	54 18	2	30
2	40	72 34	70 57	69 21	67 43	66 07	64 32	62 57	61 23	59 50	58 18	56 47	55 16	2	40
2	50	72 43	71 10	69 38	68 06	66 34	65 02	63 31	62 01	60 31	59 02	57 34	56 05	2	50
3	00	72 47	71 18	69 51	68 22	66 53	65 25	63 58	62 31	61 04	59 38	58 13	56 48	3	00
3	10	72 47	71 23	69 58	68 33	67 08	65 43	64 19	62 55	61 32	60 08	58 44	57 22	3	10
3	20	72 46	71 23	70 01	68 39	67 17	65 56	64 34	63 13	61 52	60 31	59 11	57 50	3	20
3	30	72 39	71 20	70 01	68 43	67 23	66 04	64 45	63 27	62 08	60 49	59 31	58 13	3	30
3	40	72 31	71 14	69 58	68 41	67 25	66 08	64 52	63 36	62 19	61 03	59 46	58 30	3	40
3	50	72 20	71 06	69 52	68 37	67 22	66 08	64 54	63 40	62 26	61 11	59 57	58 43	3	50
4	00	72 07	70 55	69 42	68 30	67 18	66 05	64 53	63 41	62 29	61 16	60 04	58 52	4	00
4	10	71 51	70 41	69 30	68 21	67 10	65 59	64 49	63 38	62 28	61 17	60 06	58 56	4	10
4	20	71 33	70 25	69 17	68 08	66 59	65 51	64 41	63 32	62 24	61 15	60 05	58 56	4	20
4	30	71 14	70 09	69 01	67 54	66 46	65 38	64 31	63 24	62 16	61 08	60 01	58 53	4	30
4	40	70 53	69 48	68 42	67 36	66 30	65 24	64 18	63 13	62 06	61 00	59 53	58 47	4	40
4	50	70 30	69 26	68 21	67 17	66 13	65 08	64 03	62 58	61 53	60 48	59 43	58 38	4	50
5	00	70 05	69 01	67 59	66 55	65 52	64 48	63 45	62 41	61 37	60 33	59 29	58 25	5	00
5	10	69 37	68 36	67 34	66 31	65 29	64 27	63 24	62 22	61 19	60 16	59 13	58 10	5	10
5	20	69 09	68 09	67 07	66 06	65 04	64 03	63 01	62 00	60 58	59 56	58 53	57 52	5	20
5	30	68 39	67 39	66 38	65 38	64 37	63 36	62 36	61 35	60 34	59 33	58 31	57 31	5	30
5	40	68 07	67 07	66 08	65 08	64 08	63 08	62 08	61 08	60 08	59 08	58 07	57 08	5	40
5	50	67 32	66 33	65 35	64 36	63 37	62 37	61 38	60 39	59 40	58 40	57 41	56 41	5	50
6	00	66 56	65 58	65 00	64 01	63 03	62 04	61 06	60 07	59 08	58 10	57 11	56 12	6	00
6	10	66 18	65 21	64 22	63 25	62 27	61 29	60 31	59 33	58 35	57 36	56 38	55 40	6	10
6	20	65 38	64 41	63 43	62 46	61 49	60 52	59 54	58 57	57 59	57 01	56 04	55 06	6	20
6	30	64 56	63 58	63 01	62 04	61 08	60 11	59 14	58 17	57 20	56 23	55 26	54 28	6	30
6	40	64 11	63 14	62 17	61 20	60 24	59 27	58 31	57 35	56 38	55 44	54 46	53 49	6	40
6	50	63 23	62 27	61 31	60 35	59 38	58 43	57 46	56 50	55 55	54 58	54 03	53 07	6	50
7	00	62 34	61 38	60 42	59 45	58 50	57 54	56 58	56 03	55 08	54 12	53 16	52 21	7	00
7	10	61 42	60 46	59 50	58 53	57 58	57 03	56 08	55 13	54 18	53 23	52 28	51 33	7	10
7	20	60 46	59 50	58 53	57 57	57 03	56 09	55 15	54 20	53 25	52 30	51 36	50 41	7	20
7	30	59 48	58 53	57 58	57 02	56 07	55 13	54 18	53 23	52 28	51 34	50 40	49 46	7	30
7	40	58 47	57 51	56 57	56 01	55 07	54 12	53 17	52 24	51 30	50 36	49 42	48 48	7	40
7	50	57 42	56 47	55 52	54 57	54 03	53 08	52 14	51 20	50 27	49 34	48 40	47 47	7	50
8	00	56 34	55 38	54 44	53 49	52 54	52 01	51 07	50 14	49 21	48 28	47 35	46 43	8	00
8	10	55 21	54 26	53 32	52 37	51 44	50 50	49 57	49 04	48 11	47 19	46 26	45 35	8	10
8	20	54 04	53 09	52 15	51 21	50 27	49 34	48 41	47 50	46 57	46 06	45 14	44 22	8	20
8	30	52 44	51 49	50 55	50 01	49 08	48 15	47 23	46 31	45 39	44 48	43 57	43 07	8	30
8	40	51 19	50 23	49 30	48 36	47 44	46 51	45 59	45 08	44 17	43 27	42 36	41 47	8	40
8	50	49 47	48 52	47 59	47 07	46 15	45 23	44 31	43 41	42 50	42 01	41 12	40 22	8	50
9	00	48 11	47 18	46 25	45 32	44 40	43 49	42 58	42 09	41 19	40 31	39 42	38 54	9	00
9	10	46 30	45 36	44 44	43 51	43 01	42 10	41 21	40 32	39 43	38 56	38 07	37 21	9	10
9	20	44 41	43 48	42 58	42 06	41 16	40 27	39 38	38 50	38 03	37 16	36 29	35 44	9	20
9	30	42 47	41 56	41 05	40 14	39 26	38 38	37 50	37 03	36 17	35 31	34 46	34 02	9	30
9	40	40 46	39 55	39 06	38 16	37 29	36 42	35 55	35 10	34 26	33 42	32 58	32 15	9	40
9	50	38 38	37 48	37 01	36 13	35 26	34 40	33 55	33 12	32 28	31 46	31 04	30 24	9	50
10	00	36 22	35 34	34 47	34 01	33 17	32 33	31 50	31 08	30 27	29 47	29 06	28 27	10	00
10	10	33 59	33 12	32 28	31 45	31 03	30 21	29 39	28 59	28 19	27 41	27 02	26 26	10	10
10	20	31 28	30 44	30 02	29 19	28 39	28 00	27 21	26 43	25 57	25 30	24 54	24 20	10	20
10	30	28 48	28 07	27 27	26 49	26 11	25 33	24 58	24 23	23 48	23 15	22 42	22 10	10	30
10	40	26 02	25 24	24 46	24 10	23 35	23 01	22 28	21 56	21 25	20 54	20 24	19 55	10	40
10	50	23 07	22 33	21 58	21 25	20 54	20 24	19 54	19 24	18 56	18 29	18 01	17 36	10	50
11	00	20 04	19 33	19 04	18 34	18 07	17 40	17 14	16 49	16 23	16 00	15 36	15 13	11	00
11	10	16 55	16 29	16 03	15 38	15 14	14 52	14 30	14 08	13 46	13 26	13 05	12 46	11	10
11	20	13 40	13 19	12 58	12 38	12 18	11 59	11 41	11 23	11 06	10 49	10 33	10 17	11	20
11	30	10 21	10 04	9 48	9 32	9 18	9 02	8 48	8 35	8 22	8 09	7 57	7 45	11	30
11	40	6 56	6 45	6 33	6 23	6 13	6 03	5 54	5 45	5 36	5 28	5 19	5 11	11	40
11	50	3 29	3 23	3 18	3 12	3 07	3 02	2 58	2 53	2 48	2 44	2 40	2 36	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 17°.				DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 17°.			
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.					
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.				
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00				
	10	6 11	5 48	5 29	5 10	4 53	4 38	4 23	4 09	3 57	3 45	3 34	3 24		10				
	20	12 11	11 29	10 50	10 13	9 41	9 10	8 41	8 15	7 51	7 28	7 06	6 46		20				
	30	17 52	16 51	15 56	15 04	14 17	13 33	12 52	12 14	11 38	11 04	10 33	10 03		30				
	40	23 07	21 52	20 43	19 38	18 39	17 43	16 51	16 03	15 17	14 34	13 54	13 15		40				
	50	27 52	26 27	25 07	23 52	22 43	21 38	20 36	19 39	18 45	17 53	17 04	16 18		50				
1	00	32 07	30 34	29 07	27 45	26 27	25 14	24 06	23 00	21 59	21 00	20 05	19 12	1	00				
	10	35 52	34 15	32 42	31 14	29 52	28 33	27 19	26 08	25 00	23 56	22 55	21 56		10				
	20	39 09	37 29	35 54	34 23	32 56	31 34	30 15	29 00	27 47	26 39	25 33	24 29		20				
	30	42 01	40 21	38 45	37 12	35 43	34 17	32 56	31 37	30 21	29 09	27 59	26 52		30				
	40	44 31	42 51	41 14	39 41	38 10	36 44	35 20	33 59	32 42	31 26	30 14	29 04		40				
	50	46 41	45 02	43 26	41 52	40 22	38 55	37 30	36 08	34 48	33 31	32 17	31 04		50				
2	00	48 33	46 56	45 21	43 49	42 19	40 51	39 26	38 03	36 43	35 25	34 09	32 55	2	00				
	10	50 10	48 35	47 01	45 31	44 01	42 35	41 10	39 47	38 26	37 07	35 51	34 36		10				
	20	51 34	50 01	48 30	46 59	45 32	44 06	42 42	41 20	39 58	38 40	37 23	36 07		20				
	30	52 45	51 14	49 46	48 18	46 52	45 27	44 04	42 42	41 21	40 03	38 46	37 30		30				
	40	53 47	52 19	50 51	49 25	48 01	46 37	45 16	43 54	42 34	41 17	40 00	38 43		40				
	50	54 39	53 13	51 48	50 24	49 01	47 39	46 18	44 58	43 39	42 22	41 06	39 49		50				
3	00	55 23	54 00	52 37	51 15	49 53	48 33	47 13	45 54	44 37	43 20	42 04	40 49	3	00				
	10	56 00	54 39	53 17	51 58	50 38	49 19	48 01	46 43	45 27	44 11	42 55	41 41		10				
	20	56 30	55 11	53 52	52 34	51 15	49 58	48 42	47 25	46 10	44 55	43 40	42 27		20				
	30	56 55	55 38	54 21	53 04	51 48	50 32	49 17	48 01	46 47	45 33	44 20	43 07		30				
	40	57 15	55 59	54 44	53 28	52 13	50 59	49 45	48 31	47 18	46 05	44 53	43 41		40				
	50	57 29	56 16	55 01	53 48	52 34	51 21	50 09	48 56	47 44	46 33	45 21	44 10		50				
4	00	57 39	56 27	55 15	54 03	52 51	51 39	50 28	49 16	48 05	46 55	45 44	44 33	4	00				
	10	57 45	56 34	55 24	54 13	53 02	51 52	50 42	49 32	48 21	47 13	46 03	44 53		10				
	20	57 46	56 37	55 29	54 19	53 10	52 00	50 52	49 43	48 34	47 25	46 16	45 08		20				
	30	57 45	56 37	55 30	54 22	53 14	52 06	50 58	49 49	48 42	47 34	46 27	45 19		30				
	40	57 40	56 34	55 27	54 20	53 13	52 07	51 00	49 53	48 46	47 40	46 33	45 26		40				
	50	57 32	56 27	55 21	54 15	53 09	52 04	50 59	49 52	48 46	47 41	46 35	45 29		50				
5	00	57 20	56 16	55 12	54 07	53 03	51 58	50 54	49 48	48 43	47 38	46 34	45 29	5	00				
	10	57 07	56 03	55 00	53 56	52 52	51 48	50 45	49 41	48 37	47 34	46 30	45 25		10				
	20	56 49	55 46	54 44	53 41	52 38	51 36	50 33	49 30	48 27	47 25	46 21	45 18		20				
	30	56 29	55 27	54 26	53 24	52 22	51 20	50 18	49 16	48 14	47 12	46 09	45 07		30				
	40	56 06	55 06	54 05	53 04	52 03	51 01	50 01	48 59	47 58	46 57	45 55	44 53		40				
	50	55 41	54 41	53 41	52 41	51 41	50 40	49 40	48 39	47 39	46 38	45 38	44 37		50				
6	00	55 13	54 13	53 14	52 14	51 15	50 16	49 16	48 16	47 16	46 17	45 17	44 17	6	00				
	10	54 41	53 43	52 44	51 46	50 47	49 48	48 50	47 50	46 52	45 52	44 53	43 54		10				
	20	54 08	53 10	52 12	51 14	50 16	49 19	48 21	47 22	46 23	45 25	44 26	43 27		20				
	30	53 32	52 35	51 37	50 40	49 42	48 45	47 48	46 50	45 52	44 55	43 57	42 59		30				
	40	52 52	51 56	50 58	50 02	49 05	48 09	47 12	46 15	45 18	44 22	43 25	42 27		40				
	50	52 11	51 15	50 18	49 22	48 26	47 30	46 34	45 37	44 42	43 45	42 49	41 53		50				
7	00	51 26	50 31	49 34	48 39	47 43	46 48	45 53	44 57	44 01	43 07	42 11	41 15	7	00				
	10	50 37	49 43	48 48	47 53	46 57	46 03	45 09	44 13	43 19	42 25	41 29	40 34		10				
	20	49 47	48 53	47 58	47 04	46 09	45 15	44 21	43 26	42 33	41 39	40 45	39 51		20				
	30	48 53	47 59	47 05	46 11	45 18	44 24	43 31	42 37	41 44	40 51	39 58	39 05		30				
	40	47 55	47 02	46 09	45 16	44 23	43 30	42 38	41 45	40 52	40 00	39 08	38 16		40				
	50	46 55	46 02	45 10	44 17	43 25	42 33	41 41	40 49	39 58	39 07	38 15	37 23		50				
8	00	45 50	44 59	44 07	43 14	42 23	41 33	40 42	39 50	39 00	38 09	37 18	36 27	8	00				
	10	44 43	43 52	43 00	42 09	41 19	40 28	39 39	38 48	37 58	37 09	36 19	35 30		10				
	20	43 32	42 41	41 52	41 00	40 11	39 21	38 32	37 43	36 56	36 05	35 16	34 28		20				
	30	42 16	41 27	40 37	39 48	38 59	38 10	37 23	36 34	35 45	34 58	34 10	33 23		30				
	40	40 57	40 08	39 20	38 31	37 44	36 55	36 09	35 22	34 34	33 48	33 01	32 16		40				
	50	39 35	38 46	37 58	37 11	36 24	35 38	34 51	34 06	33 20	32 35	31 49	31 05		50				
9	00	38 07	37 20	36 33	35 46	35 01	34 16	33 31	32 46	32 02	31 18	30 34	29 51	9	00				
	10	36 35	35 49	35 04	34 19	33 34	32 50	32 07	31 23	30 40	29 58	29 15	28 34		10				
	20	34 59	34 15	33 30	32 46	32 04	31 21	30 39	29 57	29 15	28 35	27 54	27 14		20				
	30	33 18	32 35	31 53	31 10	30 29	29 47	29 07	28 27	27 47	27 08	26 28	25 50		30				
	40	31 32	30 52	30 11	29 30	28 50	28 11	27 32	26 53	26 15	25 38	25 00	24 23		40				
	50	29 43	29 04	28 24	27 45	27 07	26 29	25 53	25 16	24 40	24 04	23 28	22 54		50				
10	00	27 48	27 12	26 34	25 57	25 21	24 45	24 10	23 35	23 01	22 28	21 54	21 21	10	00				
	10	25 49	25 14	24 38	24 04	23 30	22 56	22 24	21 51	21 19	20 48	20 16	19 46		10				
	20	23 47	23 13	22 41	22 07	21 36	21 05	20 35	20 04	19 35	19 05	18 36	18 09		20				
	30	21 38	21 08	20 38	20 07	19 38	19 10	18 42	18 14	17 47	17 20	16 53	16 28		30				
	40	19 26	18 58	18 31	18 03	17 37	17 11	16 45	16 21	15 56	15 32	15 07	14 44		40				
	50	17 09	16 45	16 20	15 56	15 32	15 09	14 46	14 25	14 03	13 39	13 16	12 53		50				
11	00	14 51	14 28	14 07	13 45	13 25	13 04	12 45	12 25	12 06	11 48	11 29	11 12	11	00				
	10	12 28	12 09	11 51	11 33	11 16	10 59	10 41	10 25	10 09	9 54	9 37	9 22		10				
	20	10 02	9 46	9 31	9 17	9 03	8 50	8 36	8 23	8 10	7 57	7 44	7 32		20				
	30	7 33	7 22	7 11	6 59	6 49	6 38	6 28	6 18	6 08	5 58	5 49	5 40		30				
	40	5 03	4 56	4 48	4 41	4 33	4 26	4 20	4 13	4 06	4 00	3 53	3 47		40				
	50	2 32	2 28	2 25	2 21	2 17	2 13	2 11	2 07	2 04	2 00	1 57	1 54		50				
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00				

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 17°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 17°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	3 14	3 05	2 57	2 48	2 40	2 34	2 26	2 19	2 13	2 07	2 01	1 56		10
	20	6 27	6 09	5 52	5 35	5 20	5 05	4 52	4 39	4 25	4 13	4 01	3 50		20
	30	9 35	9 09	8 44	8 20	7 57	7 35	7 15	6 55	6 36	6 18	6 01	5 44		30
	40	12 38	12 05	11 32	11 00	10 31	10 03	9 35	9 09	8 44	8 21	7 58	7 35		40
	50	15 34	14 53	14 14	13 36	13 00	12 24	11 52	11 20	10 50	10 20	9 52	9 24		50
1	00	18 22	17 34	16 48	16 04	15 22	14 42	14 03	13 26	12 50	12 16	11 43	11 11	1	00
	10	21 00	20 07	19 15	18 26	17 39	16 54	16 10	15 28	14 47	14 08	13 31	12 54		10
	20	23 29	22 31	21 34	20 41	19 49	18 59	18 10	17 25	16 39	15 55	15 14	14 34		20
	30	25 47	24 45	23 45	22 48	21 52	20 58	20 05	19 16	18 27	17 39	16 54	16 10		30
	40	27 56	26 50	25 48	24 47	23 47	22 50	21 54	21 00	20 08	19 17	18 28	17 40		40
	50	29 54	28 46	27 41	26 37	25 35	24 34	23 36	22 39	21 44	20 50	19 58	19 07		50
2	00	31 43	30 34	29 26	28 20	27 15	26 12	25 12	24 13	23 14	22 18	21 23	20 30	2	00
	10	33 23	32 11	31 02	29 55	28 48	27 43	26 40	25 39	24 39	23 40	22 42	21 46		10
	20	34 53	33 41	32 31	31 21	30 14	29 07	28 02	27 00	25 58	24 56	23 57	22 59		20
	30	36 15	35 03	33 52	32 41	31 32	30 25	29 18	28 14	27 10	26 08	25 08	24 07		30
	40	37 30	36 16	35 04	33 54	32 44	31 36	30 29	29 23	28 18	27 15	26 13	25 10		40
	50	38 35	37 22	36 10	34 59	33 50	32 40	31 32	30 26	29 20	28 15	27 12	26 09		50
3	00	39 35	38 22	37 09	35 58	34 48	33 38	32 30	31 24	30 17	29 11	28 06	27 04	3	00
	10	40 28	39 15	38 03	36 52	35 41	34 32	33 23	32 16	31 09	30 02	28 57	27 52		10
	20	41 13	40 02	38 50	37 39	36 29	35 20	34 11	33 03	31 55	30 48	29 42	28 35		20
	30	41 54	40 42	39 31	38 21	37 11	36 01	34 53	33 45	32 37	31 30	30 24	29 15		30
	40	42 29	41 18	40 07	38 57	37 48	36 38	35 30	34 22	33 14	32 07	31 01	29 55		40
	50	42 59	41 49	40 38	39 29	38 20	37 10	36 03	34 55	33 47	32 39	31 34	30 28		50
4	00	43 23	42 14	41 05	39 56	38 47	37 38	36 31	35 23	34 15	33 09	32 02	30 56	4	00
	10	43 44	42 35	41 26	40 19	39 10	38 02	36 54	35 47	34 40	33 33	32 27	31 21		10
	20	44 00	42 52	41 43	40 36	39 29	38 21	37 14	36 08	35 00	33 53	32 48	31 42		20
	30	44 12	43 05	41 58	40 50	39 43	38 36	37 30	36 24	35 16	34 10	33 05	31 59		30
	40	44 19	43 13	42 07	41 00	39 54	38 47	37 42	36 36	35 30	34 24	33 18	32 13		40
	50	44 24	43 17	42 12	41 07	40 01	38 55	37 49	36 44	35 38	34 33	33 29	32 23		50
5	00	44 24	43 19	42 14	41 09	40 04	38 59	37 54	36 50	35 45	34 40	33 36	32 31	5	00
	10	44 20	43 17	42 12	41 08	40 04	39 00	37 56	36 52	35 47	34 43	33 39	32 35		10
	20	44 14	43 11	42 08	41 04	40 01	38 57	37 53	36 50	35 46	34 42	33 39	32 36		20
	30	44 04	43 03	42 00	40 57	39 54	38 51	37 48	36 45	35 42	34 39	33 36	32 33		30
	40	43 52	42 49	41 48	40 46	39 45	38 42	37 40	36 38	35 35	34 32	33 30	32 28		40
	50	43 36	42 35	41 34	40 33	39 31	38 29	37 28	36 27	35 25	34 23	33 22	32 20		50
6	00	43 16	42 17	41 16	40 16	39 15	38 14	37 13	36 13	35 12	34 11	33 10	32 09	6	00
	10	42 55	41 55	40 56	39 56	38 56	37 56	36 55	35 55	34 55	33 55	32 56	31 55		10
	20	42 29	41 31	40 32	39 33	38 34	37 35	36 36	35 37	34 37	33 37	32 39	31 39		20
	30	42 01	41 03	40 05	39 07	38 09	37 11	36 13	35 14	34 15	33 17	32 18	31 19		30
	40	41 31	40 33	39 36	38 39	37 42	36 44	35 46	34 49	33 50	32 53	31 56	30 57		40
	50	40 57	40 00	39 04	38 07	37 11	36 14	35 18	34 21	33 23	32 27	31 30	30 33		50
7	00	40 20	39 24	38 28	37 33	36 38	35 41	34 46	33 50	32 54	31 57	31 01	30 06	7	00
	10	39 40	38 45	37 51	36 55	36 00	35 05	34 11	33 16	32 21	31 26	30 31	29 36		10
	20	38 57	38 03	37 09	36 16	35 22	34 28	33 34	32 40	31 45	30 51	29 57	29 03		20
	30	38 12	37 19	36 26	35 33	34 40	33 47	32 54	32 01	31 08	30 15	29 22	28 29		30
	40	37 23	36 32	35 39	34 47	33 56	33 03	32 11	31 19	30 27	29 35	28 44	27 52		40
	50	36 32	35 41	34 49	33 59	33 08	32 17	31 27	30 36	29 44	28 53	28 02	27 12		50
8	00	35 38	34 47	33 58	33 08	32 17	31 28	30 38	29 48	28 58	28 09	27 19	26 29	8	00
	10	34 40	33 52	33 02	32 13	31 25	30 36	29 48	28 59	28 10	27 21	26 33	25 45		10
	20	33 40	32 53	32 04	31 17	30 29	29 41	28 54	28 07	27 19	26 32	25 46	24 59		20
	30	32 37	31 50	31 03	30 17	29 30	28 44	27 58	27 13	26 26	25 40	24 55	24 10		30
	40	31 31	30 44	30 00	29 14	28 29	27 44	26 59	26 15	25 30	24 46	24 02	23 18		40
	50	30 21	29 36	28 53	28 09	27 25	26 42	25 58	25 16	24 32	23 50	23 07	22 24		50
9	00	29 07	28 25	27 42	27 00	26 18	25 36	24 54	24 13	23 31	22 49	22 09	21 28	9	00
	10	27 53	27 10	26 29	25 48	25 08	24 28	23 48	23 08	22 28	21 49	21 10	20 30		10
	20	26 33	25 54	25 14	24 35	23 56	23 18	22 39	22 01	21 22	20 45	20 07	19 30		20
	30	25 12	24 34	23 56	23 18	22 41	22 04	21 28	20 51	20 16	19 40	19 04	18 27		30
	40	23 47	23 11	22 34	21 59	21 24	20 49	20 15	19 40	19 05	18 31	17 57	17 23		40
	50	22 19	21 45	21 11	20 38	20 04	19 32	18 58	18 26	17 53	17 21	16 49	16 18		50
10	00	20 49	20 17	19 45	19 13	18 42	18 11	17 40	17 10	16 39	16 09	15 40	15 10	10	00
	10	19 16	18 45	18 16	17 46	17 17	16 49	16 20	15 52	15 24	14 56	14 28	14 01		10
	20	17 40	17 12	16 45	16 18	15 51	15 24	14 58	14 32	14 05	13 40	13 15	12 50		20
	30	16 02	15 37	15 11	14 46	14 22	13 58	13 34	13 10	12 37	12 23	12 00	11 37		30
	40	14 21	13 58	13 36	13 14	12 51	12 30	12 08	11 47	11 26	11 04	10 44	10 23		40
	50	12 38	12 18	11 58	11 39	11 19	11 00	10 41	10 22	10 03	9 45	9 27	9 08		50
11	00	10 54	10 36	10 19	10 02	9 45	9 28	9 12	8 55	8 39	8 23	8 07	7 52	11	00
	10	9 07	8 52	8 38	8 23	8 10	7 56	7 43	7 30	7 15	7 01	6 48	6 35		10
	20	7 20	7 08	6 56	6 45	6 33	6 22	6 11	6 00	5 49	5 38	5 27	5 17		20
	30	5 31	5 22	5 13	5 05	4 56	4 47	4 39	4 30	4 22	4 15	4 07	3 39		30
	40	3 41	3 35	3 29	3 23	3 17	3 11	3 07	3 01	2 55	2 50	2 45	2 39		40
	50	1 50	1 47	1 44	1 42	1 39	1 36	1 33	1 31	1 28	1 25	1 22	1 19		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 17°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 17°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	°	'	°	'	°	'	°	'	°	'	°	'	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	1 50	1 45	1 39	1 35	1 30	1 25	1 20	1 16	1 12	1 08	1 04	1 00	1	10
	20	3 40	3 29	3 19	3 09	3 00	2 50	2 42	2 33	2 25	2 16	2 09	2 00	2	20
	30	5 27	5 12	4 57	4 42	4 28	4 14	4 01	3 49	3 35	3 23	3 12	3 00	3	30
	40	7 14	6 53	6 33	6 14	5 55	5 37	5 20	5 03	4 46	4 30	4 15	4 00	4	40
	50	8 59	8 33	8 08	7 45	7 22	6 59	6 37	6 17	5 56	5 36	5 17	5 00	5	50
1	00	10 40	10 10	9 41	9 13	8 46	8 20	7 54	7 29	7 04	6 41	6 18	6 00	1	00
	10	12 19	11 45	11 12	10 40	10 08	9 38	9 08	8 40	8 12	7 44	7 18	7 00	1	10
	20	13 54	13 16	12 39	12 03	11 28	10 54	10 21	9 49	9 17	8 47	8 17	8 00	2	20
	30	15 26	14 44	14 03	13 23	12 45	12 08	11 31	10 56	10 21	9 47	9 13	9 00	2	30
	40	16 54	16 08	15 24	14 42	14 00	13 19	12 40	12 00	11 22	10 45	10 08	10 00	3	40
	50	18 17	17 29	16 42	15 56	15 11	14 27	13 45	13 03	12 21	11 42	11 03	11 00	3	50
2	00	19 36	18 46	17 56	17 07	16 19	15 32	14 47	14 03	13 18	12 35	11 54	11 00	2	00
	10	20 52	19 59	19 06	18 15	17 24	16 35	15 47	14 59	14 13	13 28	12 43	12 00	2	10
	20	22 02	21 06	20 12	19 18	18 26	17 35	16 44	15 54	15 05	14 18	13 31	13 00	2	20
	30	23 08	22 11	21 15	20 19	19 24	18 30	17 38	16 46	15 55	15 05	14 16	14 00	3	30
	40	24 10	23 10	22 13	21 15	20 19	19 23	18 29	17 36	16 42	15 50	14 59	14 50	3	40
	50	25 07	24 07	23 07	22 07	21 09	20 13	19 16	18 21	17 26	16 33	15 38	15 00	3	50
3	00	26 00	24 58	23 57	22 57	21 57	20 59	20 01	19 04	18 08	17 12	16 17	16 00	3	00
	10	26 49	25 46	24 44	23 42	22 42	21 42	20 43	19 44	18 46	17 49	16 53	16 10	4	10
	20	27 32	26 29	25 26	24 24	23 23	22 21	21 20	20 21	19 22	18 24	17 26	17 00	4	20
	30	28 14	27 09	26 05	25 02	23 59	22 58	21 57	20 56	19 55	18 56	17 58	17 30	4	30
	40	28 49	27 44	26 40	25 36	24 33	23 31	22 29	21 28	20 26	19 26	18 26	18 00	4	40
	50	29 22	28 16	27 11	26 07	25 04	24 01	22 58	21 56	20 53	19 52	18 51	18 50	4	50
4	00	29 50	28 44	27 39	26 35	25 31	24 27	23 24	22 21	21 18	20 16	19 14	19 00	4	00
	10	30 14	29 09	28 04	26 59	25 55	24 51	23 47	22 44	21 40	20 38	19 36	19 10	5	10
	20	30 36	29 30	28 25	27 20	26 15	25 11	24 08	23 04	22 00	20 57	19 55	19 20	5	20
	30	30 53	29 48	28 43	27 38	26 33	25 29	24 25	23 21	22 17	21 13	20 10	19 40	5	30
	40	31 07	30 02	28 57	27 53	26 48	25 43	24 39	23 35	22 31	21 27	20 24	19 50	5	40
	50	31 18	30 14	29 09	28 04	26 59	25 55	24 51	23 47	22 43	21 39	20 35	19 50	5	50
5	00	31 26	30 21	29 17	28 12	27 08	26 04	25 00	23 56	22 52	21 47	20 44	20 00	5	00
	10	31 30	30 26	29 22	28 18	27 13	26 09	25 06	24 02	22 58	21 55	20 51	20 10	6	10
	20	31 32	30 27	29 24	28 20	27 17	26 13	25 09	24 06	23 02	21 59	20 56	20 20	6	20
	30	31 30	30 26	29 23	28 20	27 17	26 14	25 10	24 07	23 04	22 01	20 58	20 30	6	30
	40	31 25	30 22	29 20	28 17	27 14	26 12	25 09	24 06	23 03	22 00	20 57	20 40	6	40
	50	31 18	30 16	29 14	28 11	27 09	26 07	25 04	24 02	23 00	21 58	20 55	20 50	6	50
6	00	31 07	30 06	29 04	28 03	27 02	26 00	24 58	23 57	22 54	21 53	20 50	20 00	6	00
	10	30 54	29 54	28 52	27 52	26 51	25 50	24 49	23 48	22 46	21 45	20 44	20 10	7	10
	20	30 38	29 39	28 39	27 38	26 38	25 38	24 39	23 38	22 37	21 36	20 36	20 20	7	20
	30	30 20	29 21	28 22	27 22	26 23	25 23	24 24	23 25	22 24	21 24	20 25	20 30	7	30
	40	29 59	29 01	28 02	27 04	26 05	25 06	24 08	23 09	22 10	21 11	20 11	20 40	7	40
	50	29 35	28 38	27 41	26 42	25 45	24 48	23 50	22 51	21 53	20 56	19 57	20 50	7	50
7	00	29 09	28 12	27 16	26 20	25 23	24 26	23 29	22 32	21 35	20 37	19 40	20 00	7	00
	10	28 40	27 44	26 49	25 54	24 58	24 02	23 06	22 10	21 13	20 18	19 22	19 20	8	10
	20	28 09	27 14	26 20	25 25	24 30	23 36	22 41	21 46	20 51	19 56	19 01	19 00	8	20
	30	27 35	26 42	25 49	24 55	24 01	23 08	22 14	21 21	20 26	19 32	18 39	18 40	8	30
	40	26 59	26 07	25 15	24 22	23 30	22 38	21 45	20 53	20 00	19 07	18 14	18 10	8	40
	50	26 21	25 30	24 39	23 47	22 57	22 05	21 14	20 23	19 31	18 40	17 48	17 40	8	50
8	00	25 40	24 50	24 00	23 11	22 20	21 31	20 41	19 51	19 01	18 11	17 20	17 00	8	00
	10	24 56	24 08	23 20	22 31	21 43	20 55	20 06	19 17	18 28	17 40	16 51	16 50	9	10
	20	24 11	23 24	22 37	21 50	21 03	20 16	19 29	18 42	17 54	17 07	16 20	16 20	9	20
	30	23 24	22 38	21 52	21 07	20 21	19 36	18 50	18 05	17 19	16 33	15 48	15 50	9	30
	40	22 34	21 50	21 06	20 21	19 37	18 54	18 10	17 26	16 41	15 57	15 14	15 10	9	40
	50	21 41	20 58	20 06	19 34	18 51	18 10	17 27	16 45	16 02	15 20	14 38	14 30	9	50
9	00	20 47	20 07	19 26	18 44	18 04	17 23	16 43	16 03	15 22	14 41	14 01	14 00	10	00
	10	19 51	19 12	18 32	17 54	17 14	16 36	15 57	15 19	14 39	14 01	13 22	13 20	10	10
	20	18 52	18 15	17 38	17 01	16 24	15 47	15 09	14 33	13 56	13 20	12 43	12 40	10	20
	30	17 52	17 16	16 42	16 06	15 31	14 56	14 20	13 46	13 11	12 36	12 01	12 00	10	30
	40	16 50	16 16	15 43	15 10	14 37	14 03	13 31	12 58	12 24	11 52	11 19	11 10	10	40
	50	15 46	15 14	14 44	14 12	13 41	13 09	12 39	12 08	11 37	11 06	10 35	10 30	10	50
10	00	14 41	14 11	13 42	13 13	12 44	12 15	11 46	11 17	10 48	10 19	9 51	9 50	11	00
	10	13 33	13 05	12 39	12 11	11 45	11 18	10 51	10 25	9 58	9 31	9 06	9 00	11	10
	20	12 24	11 59	11 35	11 10	10 45	10 20	9 56	9 32	9 07	8 43	8 19	8 10	11	20
	30	11 15	10 51	10 29	10 06	9 44	9 22	9 00	8 38	8 15	7 53	7 31	7 30	11	30
	40	10 03	9 43	9 22	9 02	8 42	8 22	8 02	7 42	7 22	7 03	6 44	6 40	11	40
	50	8 50	8 32	8 14	7 57	7 39	7 22	7 04	6 47	6 29	6 12	5 55	5 50	11	50
11	00	7 37	7 21	7 05	6 50	6 35	6 20	6 05	5 50	5 34	5 20	5 05	5 00	11	00
	10	6 22	6 09	5 55	5 43	5 31	5 17	5 05	4 52	4 40	4 28	4 15	4 10	12	10
	20	5 06	4 56	4 46	4 35	4 25	4 15	4 05	3 55	3 44	3 35	3 24	3 20	12	20
	30	3 51	3 43	3 34	3 27	3 19	3 12	3 04	2 56	2 48	2 41	2 34	2 30	12	30
	40	2 34	2 29	2 24	2 19	2 13	2 08	2 03	1 58	1 52	1 48	1 43	1 40	12	40
	50	1 17	1 14	1 12	1 09	1 07	1 04	1 01	0 59	0 56	0 54	0 52	0 50	12	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 18°.				DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 18°.			
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.					
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.				
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00				
	10	20 49	17 56	15 43	13 56	12 29	11 18	10 17	9 26	8 41	8 03	7 28	6 56		10				
	20	37 01	32 43	29 12	26 15	23 46	21 40	19 52	18 17	16 55	15 43	14 39	13 40		20				
	30	48 07	43 35	39 39	36 14	33 13	30 35	28 16	26 13	24 23	22 45	21 16	19 57		30				
	40	55 33	51 18	47 26	43 56	40 46	37 56	35 21	33 02	30 55	29 00	27 15	25 39		40				
	50	60 39	56 46	53 10	49 49	46 41	43 49	41 11	38 44	36 30	34 25	32 29	30 43		50				
1	00	64 14	60 44	57 25	54 17	51 19	48 32	45 55	43 28	41 12	39 03	37 02	35 09	1	00				
	10	66 49	63 41	60 39	57 44	54 57	52 17	49 46	47 22	45 07	42 58	40 56	39 01		10				
	20	68 45	65 53	63 07	60 25	57 49	55 18	52 54	50 35	48 22	46 16	44 15	42 19		20				
	30	70 11	67 34	65 01	62 31	60 05	57 44	55 27	53 14	51 07	49 03	47 04	45 10		30				
	40	71 16	68 52	66 29	64 11	61 54	59 41	57 31	55 25	53 23	51 23	49 28	47 36		40				
	50	72 05	69 51	67 40	65 30	63 22	61 16	59 13	57 13	55 16	53 21	51 29	49 41		50				
2	00	72 41	70 37	68 34	66 33	64 32	62 34	60 38	58 43	56 51	55 01	53 13	51 27	2	00				
	10	73 09	71 13	69 17	67 22	65 29	63 36	61 46	59 57	58 10	56 24	54 40	52 59		10				
	20	73 28	71 39	69 50	68 02	66 14	64 28	62 42	60 58	59 15	57 34	55 54	54 15		20				
	30	73 40	71 58	70 14	68 32	66 50	65 08	63 28	61 48	60 11	58 33	56 56	55 21		30				
	40	73 49	72 10	70 32	68 55	67 17	65 41	64 05	62 30	60 56	59 21	57 48	56 16		40				
	50	73 51	72 17	70 44	69 12	67 39	66 06	64 34	63 03	61 32	60 01	58 31	57 02		50				
3	00	73 51	72 21	70 51	69 23	67 53	66 25	64 56	63 29	62 01	60 33	59 07	57 41	3	00				
	10	73 46	72 20	70 55	69 30	68 03	66 38	65 14	63 49	62 24	60 59	59 36	58 12		10				
	20	73 39	72 16	70 54	69 32	68 09	66 47	65 25	64 03	62 41	61 19	59 58	58 37		20				
	30	73 29	72 09	70 50	69 31	68 11	66 51	65 32	64 12	62 54	61 34	60 15	58 56		30				
	40	73 16	72 00	70 43	69 26	68 08	66 52	65 35	64 19	63 04	61 45	60 27	59 11		40				
	50	73 02	71 48	70 34	69 19	68 03	66 49	65 34	64 19	63 05	61 50	60 35	59 21		50				
4	00	72 45	71 33	70 21	69 08	67 55	66 43	65 30	64 17	63 05	61 52	60 39	59 26	4	00				
	10	72 26	71 16	70 06	68 55	67 45	66 34	65 23	64 12	63 01	61 50	60 39	59 28		10				
	20	72 05	70 57	69 49	68 40	67 31	66 22	65 13	64 04	62 55	61 45	60 35	59 26		20				
	30	71 43	70 36	69 30	68 22	67 15	66 08	65 00	63 52	62 44	61 36	60 29	59 21		30				
	40	71 19	70 14	69 08	68 03	66 57	65 51	64 44	63 38	62 32	61 25	60 19	59 12		40				
	50	70 54	69 49	68 44	67 41	66 35	65 31	64 27	63 21	62 16	61 11	60 05	59 00		50				
5	00	70 25	69 23	68 19	67 16	66 13	65 10	64 06	63 02	61 59	60 54	59 49	58 45	5	00				
	10	69 56	68 55	67 53	66 51	65 48	64 46	63 43	62 40	61 37	60 34	59 32	58 28		10				
	20	69 26	68 25	67 24	66 22	65 21	64 19	63 18	62 16	61 15	60 12	59 11	58 08		20				
	30	68 53	67 52	66 52	65 52	64 51	63 51	62 50	61 50	60 49	59 47	58 46	57 45		30				
	40	68 18	67 18	66 18	65 19	64 20	63 20	62 21	61 20	60 20	59 20	58 20	57 19		40				
	50	67 42	66 43	65 44	64 46	63 46	62 47	61 48	60 49	59 50	58 51	57 51	56 52		50				
6	00	67 04	66 05	65 07	64 09	63 10	62 12	61 13	60 15	59 16	58 18	57 20	56 20	6	00				
	10	66 23	65 25	64 28	63 30	62 32	61 34	60 37	59 39	58 41	57 43	56 45	55 47		10				
	20	65 40	64 44	63 46	62 50	61 52	60 55	59 58	59 01	58 03	57 06	56 08	55 11		20				
	30	64 56	63 59	63 03	62 06	61 09	60 13	59 16	58 19	57 22	56 26	55 29	54 35		30				
	40	64 09	63 13	62 16	61 20	60 24	59 28	58 32	57 35	56 40	55 43	54 47	53 51		40				
	50	63 21	62 24	61 28	60 33	59 36	58 41	57 45	56 50	55 53	54 58	54 03	53 07		50				
7	00	62 28	61 33	60 37	59 42	58 46	57 51	56 56	56 01	55 06	54 10	53 15	52 20	7	00				
	10	61 34	60 39	59 44	58 48	57 53	56 58	56 03	55 08	54 14	53 19	52 24	51 30		10				
	20	60 37	59 42	58 47	57 52	56 56	56 02	55 05	54 10	53 16	52 22	51 28	50 36		20				
	30	59 37	58 42	57 47	56 53	55 58	55 03	54 10	53 16	52 22	51 28	50 35	49 40		30				
	40	58 34	57 39	56 44	55 50	54 56	54 01	53 08	52 14	51 21	50 27	49 35	48 42		40				
	50	57 27	56 32	55 39	54 44	53 50	52 56	52 03	51 10	50 17	49 24	48 32	47 39		50				
8	00	56 17	55 23	54 28	53 35	52 41	51 48	50 54	50 01	49 10	48 17	47 25	46 33	8	00				
	10	55 03	54 08	53 15	52 21	51 28	50 35	49 42	48 50	47 59	47 06	46 15	45 23		10				
	20	53 45	52 51	51 57	51 04	50 11	49 18	48 26	47 35	46 44	45 52	45 01	44 10		20				
	30	52 23	51 29	50 36	49 43	48 50	47 58	47 06	46 15	45 24	44 33	43 44	42 54		30				
	40	50 55	50 02	49 08	48 17	47 24	46 33	45 42	44 51	44 02	43 12	42 22	41 33		40				
	50	49 23	48 30	47 37	46 46	45 54	45 03	44 13	43 23	42 34	41 45	40 56	40 08		50				
9	00	47 46	46 53	46 01	45 10	44 18	43 28	42 39	41 50	41 02	40 13	39 26	38 38	9	00				
	10	46 03	45 11	44 20	43 30	42 38	41 49	41 00	40 13	39 25	38 38	37 51	37 06		10				
	20	44 14	43 23	42 32	41 43	40 54	40 05	39 17	38 30	37 44	36 57	36 12	35 28		20				
	30	42 20	41 28	40 39	39 51	39 02	38 15	37 29	36 43	35 57	35 12	34 28	33 41		30				
	40	40 17	39 28	38 39	37 52	37 04	36 19	35 34	34 49	34 05	33 22	32 40	31 58		40				
	50	38 09	37 20	36 34	35 48	35 02	34 17	33 34	32 51	32 09	31 27	30 47	30 07		50				
10	00	35 53	35 07	34 21	33 37	32 53	32 11	31 29	30 47	30 07	29 28	28 49	28 11	10	00				
	10	33 30	32 45	32 02	31 20	30 37	29 57	29 17	28 38	28 00	27 22	26 46	26 09		10				
	20	31 00	30 17	29 36	28 56	28 16	27 38	27 01	26 24	25 49	25 13	24 39	24 04		20				
	30	28 22	27 42	27 04	26 26	25 48	25 13	24 38	24 04	23 31	22 58	22 26	21 55		30				
	40	25 36	24 59	24 23	23 49	23 15	22 42	22 10	21 38	21 09	20 38	20 09	19 41		40				
	50	22 43	22 10	21 37	21 06	20 35	20 06	19 36	19 09	18 42	18 14	17 49	17 23		50				
11	00	19 44	19 14	18 45	18 18	17 50	17 25	16 59	16 34	16 10	15 47	15 24	15 01	11	00				
	10	16 37	16 11	15 47	15 24	15 00	14 38	14 17	13 55	13 35	13 15	12 56	12 37		10				
	20	13 23	13 04	12 44	12 25	12 06	11 48	11 31	11 13	10 56	10 41	10 26	10 09		20				
	30	10 08	9 52	9 37	9 23	9 08	8 53	8 40	8 27	8 15	8 02	7 50	7 39		30				
	40	6 48	6 37	6 27	6 16	6 07	5 57	5 49	5 39	5 32	5 23	5 15	5 07		40				
	50	3 25	3 19	3 14	3 08	3 04	2 59	2 54	2 51	2 46	2 42	2 37	2 34		50				
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00				

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 18°.				DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 18°.			
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.					
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.				
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00				
	10	6 31	6 06	5 44	5 24	5 06	4 49	4 34	4 19	4 05	3 53	3 41	3 30		10				
	20	12 49	12 02	11 20	10 40	10 05	9 32	9 01	8 34	8 08	7 43	7 20	6 59		20				
	30	18 40	17 39	16 39	15 43	14 52	14 05	13 21	12 40	12 02	11 27	10 53	10 22		30				
	40	24 12	22 50	21 36	20 27	19 23	18 23	17 27	16 36	15 47	15 01	14 19	13 38		40				
	50	29 04	27 33	26 08	24 48	23 33	22 24	21 19	20 17	19 20	18 26	17 35	16 46		50				
1	00	33 24	31 45	30 13	28 47	27 23	26 06	24 53	23 44	22 39	21 38	20 39	19 44	1	00				
	10	37 12	35 29	33 51	32 19	30 51	29 29	28 10	26 55	25 45	24 37	23 33	22 31		10				
	20	40 30	38 44	37 04	35 30	33 58	32 31	31 09	29 50	28 35	27 22	26 13	25 07		20				
	30	43 21	41 36	39 54	38 18	36 45	35 16	33 51	32 29	31 10	29 54	28 41	27 31		30				
	40	45 49	44 05	42 23	40 47	39 13	37 43	36 15	34 51	33 31	32 12	30 57	29 44		40				
	50	47 56	46 13	44 33	42 57	41 23	39 52	38 24	37 00	35 38	34 18	33 00	31 46		50				
2	00	49 45	48 04	46 26	44 51	43 19	41 48	40 20	38 55	37 32	36 11	34 52	33 36	2	00				
	10	51 18	49 41	48 04	46 31	44 59	43 30	42 03	40 38	39 14	37 54	36 34	35 17		10				
	20	52 38	51 03	49 29	47 58	46 28	45 00	43 34	42 09	40 46	39 25	38 05	36 47		20				
	30	53 47	52 15	50 44	49 14	47 45	46 18	44 53	43 29	42 08	40 47	39 27	38 10		30				
	40	54 45	53 15	51 46	50 19	48 52	47 27	46 03	44 40	43 20	41 59	40 40	39 23		40				
	50	55 34	54 07	52 40	51 15	49 50	48 27	47 03	45 42	44 22	43 03	41 45	40 27		50				
3	00	56 15	54 50	53 26	52 02	50 39	49 18	47 57	46 37	45 18	43 59	42 41	41 25	3	00				
	10	56 49	55 27	54 04	52 43	51 22	50 02	48 42	47 24	46 05	44 49	43 32	42 17		10				
	20	57 16	55 56	54 36	53 17	51 58	50 39	49 21	48 03	46 47	45 31	44 16	43 00		20				
	30	57 39	56 20	55 01	53 44	52 27	51 10	49 53	48 38	47 22	46 07	44 53	43 39		30				
	40	57 55	56 38	55 22	54 06	52 51	51 35	50 20	49 06	47 52	46 38	45 25	44 11		40				
	50	58 06	56 52	55 38	54 23	53 09	51 55	50 42	49 29	48 16	47 03	45 51	44 39		50				
4	00	58 13	57 01	55 48	54 36	53 23	52 11	50 59	49 47	48 35	47 24	46 12	45 01	4	00				
	10	58 17	57 05	55 54	54 43	53 33	52 22	51 11	50 00	48 50	47 39	46 29	45 19		10				
	20	58 17	57 07	55 57	54 47	53 38	52 28	51 19	50 09	49 00	47 51	46 42	45 33		20				
	30	58 13	57 04	55 56	54 48	53 39	52 31	51 22	50 15	49 07	47 58	46 50	45 42		30				
	40	58 05	56 58	55 51	54 44	53 37	52 30	51 22	50 16	49 08	48 02	46 54	45 47		40				
	50	57 55	56 49	55 43	54 38	53 32	52 26	51 19	50 13	49 07	48 01	46 55	45 48		50				
5	00	57 41	56 36	55 32	54 28	53 23	52 18	51 13	50 07	49 02	47 57	46 52	45 47	5	00				
	10	57 25	56 21	55 18	54 14	53 10	52 06	51 02	49 58	48 55	47 50	46 46	45 41		10				
	20	57 06	56 03	55 00	53 58	52 55	51 52	50 49	49 46	48 43	47 40	46 36	45 33		20				
	30	56 44	55 42	54 41	53 39	52 37	51 35	50 32	49 30	48 28	47 26	46 23	45 21		30				
	40	56 19	55 18	54 17	53 16	52 16	51 15	50 13	49 12	48 10	47 09	46 07	45 05		40				
	50	55 51	54 52	53 52	52 52	51 52	50 51	49 51	48 51	47 50	46 49	45 48	44 47		50				
6	00	55 22	54 23	53 24	52 24	51 25	50 25	49 25	48 26	47 26	46 26	45 26	44 27	6	00				
	10	54 49	53 50	52 52	51 53	50 54	49 56	48 57	47 59	47 00	46 01	45 02	44 02		10				
	20	54 14	53 15	52 18	51 20	50 22	49 25	48 26	47 28	46 31	45 32	44 33	43 35		20				
	30	53 35	52 38	51 42	50 45	49 47	48 49	47 53	46 55	45 57	45 00	44 02	43 04		30				
	40	52 54	51 58	51 02	50 05	49 09	48 12	47 16	46 19	45 23	44 26	43 28	42 32		40				
	50	52 11	51 15	50 20	49 23	48 27	47 32	46 36	45 40	44 44	43 48	42 52	41 56		50				
7	00	51 25	50 29	49 34	48 39	47 44	46 49	45 54	44 58	44 03	43 08	42 13	41 17	7	00				
	10	50 35	49 40	48 46	47 51	46 57	46 03	45 08	44 14	43 20	42 25	41 30	40 35		10				
	20	49 43	48 49	47 54	47 00	46 07	45 13	44 19	43 25	42 32	41 39	40 45	39 51		20				
	30	48 48	47 54	47 01	46 08	45 14	44 21	43 28	42 35	41 42	40 49	39 56	39 04		30				
	40	47 49	46 55	46 03	45 10	44 18	43 26	42 33	41 41	40 50	39 57	39 06	38 13		40				
	50	46 47	45 54	45 03	44 11	43 18	42 28	41 36	40 45	39 54	39 02	38 12	37 20		50				
8	00	45 41	44 50	43 58	43 07	42 16	41 26	40 34	39 45	38 54	38 04	37 14	36 24	8	00				
	10	44 33	43 42	42 51	42 01	41 10	40 21	39 31	38 42	37 52	37 03	36 14	35 25		10				
	20	43 21	42 30	41 40	40 51	40 01	39 13	38 24	37 35	36 47	35 58	35 11	34 23		20				
	30	42 04	41 15	40 27	39 38	38 49	38 01	37 13	36 25	35 39	34 52	34 04	33 17		30				
	40	40 44	39 56	39 07	38 21	37 32	36 46	35 59	35 13	34 26	33 40	32 55	32 08		40				
	50	39 20	38 33	37 46	36 59	36 13	35 28	34 41	33 56	33 12	32 27	31 43	30 58		50				
9	00	37 51	37 06	36 20	35 34	34 49	34 05	33 20	32 37	31 53	31 09	30 27	29 43	9	00				
	10	36 20	35 35	34 51	34 05	33 22	32 39	31 56	31 13	30 31	29 48	29 07	28 26		10				
	20	34 44	34 00	33 16	32 33	31 51	31 09	30 27	29 47	29 06	28 26	27 45	27 06		20				
	30	33 02	32 20	31 38	30 56	30 16	29 36	28 55	28 17	27 38	26 58	26 20	25 42		30				
	40	31 17	30 36	29 56	29 17	28 37	27 58	27 20	26 42	26 05	25 28	24 52	24 15		40				
	50	29 27	28 48	28 10	27 32	26 55	26 18	25 41	25 06	24 30	23 54	23 20	22 46		50				
10	00	27 33	26 56	26 20	25 43	25 08	24 33	23 59	23 25	22 52	22 18	21 46	21 13	10	00				
	10	25 34	25 00	24 25	23 51	23 18	22 46	22 13	21 41	21 10	20 39	20 08	19 38		10				
	20	23 31	22 58	22 26	21 55	21 24	20 55	20 24	19 55	19 25	18 57	18 29	18 01		20				
	30	21 24	20 54	20 24	19 55	19 27	19 00	18 32	18 04	17 38	17 12	16 46	16 20		30				
	40	19 13	18 45	18 19	17 52	17 27	17 01	16 37	16 12	15 48	15 24	15 01	14 37		40				
	50	16 58	16 34	16 10	15 46	15 23	15 01	14 38	14 17	13 55	13 34	13 14	12 53		50				
11	00	14 40	14 18	13 57	13 37	13 16	12 58	12 37	12 19	12 00	11 42	11 24	11 07	11	00				
	10	12 18	12 00	11 42	11 25	11 08	10 52	10 36	10 19	10 03	9 48	9 33	9 18		10				
	20	9 54	9 39	9 25	9 11	8 57	8 44	8 31	8 17	8 05	7 53	7 40	7 29		20				
	30	7 27	7 16	7 06	6 54	6 44	6 34	6 24	6 14	6 05	5 55	5 47	5 37		30				
	40	5 00	4 52	4 44	4 37	4 30	4 24	4 17	4 10	4 04	3 58	3 51	3 45		40				
	50	2 30	2 26	2 23	2 19	2 16	2 12	2 09	2 05	2 02	1 59	1 56</							

AZIMUTH OR TRUE BEARING.

LATITUDE 18°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 18°.	
Hour angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour angle.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.
	0	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		0
	10	3 21	3 11	3 01	2 53	2 45	2 37	2 30	2 23	2 16	2 10	2 04	1 58		10
	20	6 38	6 19	6 02	5 44	5 29	5 14	4 58	4 45	4 32	4 18	4 07	3 54		20
	30	9 52	9 24	8 58	8 33	8 09	7 47	7 25	7 05	6 45	6 26	6 08	5 50		30
	40	13 01	12 24	11 50	11 17	10 47	10 17	9 48	9 22	8 56	8 31	8 07	7 44		40
	50	16 00	15 17	14 35	13 56	13 19	12 42	12 08	11 34	11 03	10 32	10 04	9 35		50
1	00	18 51	18 01	17 13	16 27	15 44	15 02	14 22	13 44	13 07	12 30	11 56	11 24	1	00
	10	21 33	20 37	19 44	18 52	18 04	17 17	16 31	15 47	15 05	14 25	13 46	13 09		10
	20	24 03	23 03	22 05	21 09	20 16	19 23	18 34	17 45	16 59	16 14	15 31	14 49		20
	30	26 24	25 20	24 18	23 18	22 20	21 25	20 31	19 38	18 48	17 59	17 12	16 26		30
	40	28 34	27 27	26 21	25 18	24 17	23 18	22 20	21 24	20 30	19 39	18 47	17 58		40
	50	30 34	29 22	28 15	27 10	26 05	25 03	24 03	23 05	22 07	21 12	20 18	19 26		50
2	00	32 22	31 10	30 00	28 52	27 46	26 42	25 39	24 38	23 38	22 41	21 44	20 49	2	00
	10	34 02	32 48	31 38	30 28	29 19	28 13	27 08	26 05	25 03	24 03	23 04	22 07		10
	20	35 32	34 18	33 05	31 54	30 45	29 37	28 30	27 26	26 22	25 21	24 20	23 18		20
	30	36 54	35 39	34 26	33 14	32 04	30 54	29 47	28 41	27 35	26 32	25 30	24 28		30
	40	38 07	36 51	35 39	34 26	33 15	32 05	30 56	29 49	28 43	27 38	26 34	25 31		40
	50	39 12	37 57	36 43	35 31	34 20	33 10	32 00	30 52	29 45	28 39	27 33	26 30		50
3	00	40 10	38 55	37 42	36 29	35 18	34 08	32 57	31 49	30 41	29 34	28 28	27 24	3	00
	10	41 01	39 47	38 34	37 22	36 11	35 00	33 50	32 40	31 32	30 25	29 18	28 13		10
	20	41 46	40 33	39 20	38 08	36 57	35 46	34 36	33 27	32 18	31 11	30 04	28 58		20
	30	42 26	41 13	40 00	38 49	37 38	36 27	35 18	34 09	32 59	31 52	30 45	29 39		30
	40	42 58	41 47	40 35	39 24	38 14	37 04	35 54	34 45	33 36	32 28	31 21	30 14		40
	50	43 28	42 16	41 05	39 55	38 45	37 34	36 25	35 17	34 08	33 00	31 53	30 46		50
4	00	43 50	42 40	41 30	40 20	39 11	38 02	36 53	35 44	34 35	33 28	32 21	31 14	4	00
	10	44 09	43 00	41 50	40 42	39 33	38 24	37 15	36 08	35 00	33 52	32 44	31 38		10
	20	44 23	43 15	42 07	40 59	39 50	38 42	37 34	36 26	35 19	34 12	33 05	31 58		20
	30	44 34	43 26	42 18	41 11	40 04	38 56	37 49	36 42	35 35	34 28	33 21	32 15		30
	40	44 40	43 33	42 26	41 20	40 13	39 05	37 59	36 53	35 46	34 40	33 34	32 28		40
	50	44 42	43 36	42 30	41 25	40 19	39 12	38 06	37 00	35 54	34 49	33 43	32 37		50
5	00	44 42	43 36	42 30	41 25	40 19	39 12	38 06	37 00	35 54	34 49	33 43	32 37	5	00
	10	44 42	43 36	42 30	41 25	40 19	39 12	38 06	37 00	35 54	34 49	33 43	32 37		10
	20	44 29	43 26	42 22	41 18	40 15	39 11	38 07	37 03	35 59	34 55	33 51	32 47		20
	30	44 18	43 15	42 12	41 10	40 06	39 04	38 00	36 57	35 54	34 51	33 47	32 44		30
	40	44 03	43 02	42 00	40 58	39 55	38 53	37 51	36 49	35 46	34 43	33 40	32 38		40
	50	43 46	42 45	41 44	40 43	39 41	38 40	37 39	36 36	35 35	34 33	33 31	32 28		50
6	00	43 26	42 26	41 26	40 25	39 25	38 24	37 23	36 22	35 20	34 20	33 18	32 18	6	00
	10	43 03	42 03	41 03	40 04	39 04	38 04	37 04	36 04	35 04	34 04	33 03	32 03		10
	20	42 37	41 38	40 38	39 40	38 41	37 42	36 43	35 44	34 44	33 45	32 44	31 45		20
	30	42 07	41 09	40 11	39 13	38 15	37 16	36 19	35 20	34 22	33 23	32 23	31 25		30
	40	41 35	40 38	39 41	38 43	37 46	36 49	35 52	34 53	33 56	32 58	32 00	31 02		40
	50	41 00	40 04	39 08	38 11	37 15	36 18	35 21	34 25	33 28	32 32	31 34	30 38		50
7	00	40 22	39 27	38 31	37 36	36 40	35 45	34 49	33 53	32 58	32 01	31 06	30 10	7	00
	10	39 41	38 47	37 52	36 57	36 03	35 08	34 13	33 19	32 24	31 28	30 34	29 39		10
	20	38 57	38 04	37 11	36 17	35 23	34 29	33 36	32 42	31 48	30 54	30 00	29 06		20
	30	38 11	37 19	36 26	35 33	34 40	33 47	32 55	32 02	31 10	30 17	29 23	28 30		30
	40	37 22	36 31	35 39	34 47	33 55	33 04	32 11	31 20	30 28	29 37	28 44	27 53		40
	50	36 30	35 39	34 48	33 57	33 07	32 16	31 26	30 35	29 44	28 54	28 03	27 12		50
8	00	35 34	34 44	33 55	33 05	32 16	31 26	30 37	29 48	28 57	28 09	27 19	26 30	8	00
	10	34 36	33 48	32 59	32 11	31 22	30 34	29 46	28 58	28 10	27 21	26 33	25 45		10
	20	33 35	32 48	32 00	31 13	30 26	29 39	28 52	28 05	27 18	26 31	25 44	24 58		20
	30	32 31	31 45	30 58	30 12	29 27	28 41	27 55	27 10	26 24	25 39	24 53	24 08		30
	40	31 24	30 39	29 54	29 09	28 25	27 41	26 56	26 12	25 28	24 44	24 00	23 17		40
	50	30 14	29 31	28 47	28 04	27 21	26 37	25 55	25 12	24 29	23 47	23 04	22 23		50
9	00	29 01	28 18	27 37	26 55	26 14	25 32	24 51	24 09	23 28	22 47	22 06	21 26	9	00
	10	27 44	27 04	26 24	25 43	25 03	24 23	23 44	23 04	22 25	21 46	21 07	20 28		10
	20	26 26	25 47	25 08	24 29	23 51	23 13	22 35	21 57	21 20	20 43	20 06	19 28		20
	30	25 04	24 27	23 50	23 13	22 37	21 59	21 24	20 47	20 11	19 36	19 01	18 26		30
	40	23 39	23 04	22 28	21 53	21 19	20 43	20 10	19 35	19 02	18 28	17 54	17 21		40
	50	22 12	21 38	21 04	20 32	19 59	19 26	18 54	18 21	17 49	17 18	16 46	16 15		50
10	00	20 41	20 09	19 39	19 07	18 36	18 06	17 36	17 06	16 36	16 06	15 37	15 08	10	00
	10	19 08	18 39	18 09	17 41	17 13	16 43	16 16	15 48	15 20	14 52	14 25	13 58		10
	20	17 33	17 06	16 39	16 13	15 46	15 19	14 54	14 28	14 02	13 37	13 12	12 47		20
	30	15 55	15 30	15 06	14 42	14 17	13 53	13 30	13 07	12 43	12 20	11 58	11 35		30
	40	14 15	13 53	13 30	13 08	12 47	12 25	12 04	11 43	11 22	11 01	10 41	10 21		40
	50	12 33	12 13	11 53	11 34	11 15	10 56	10 37	10 18	10 01	9 42	9 24	9 07		50
11	00	10 48	10 32	10 15	9 58	9 41	9 25	9 08	8 53	8 37	8 21	8 06	7 50	11	00
	10	9 48	8 48	8 35	8 20	8 07	7 53	7 39	7 25	7 13	7 00	6 46	6 34		10
	20	7 16	7 05	6 53	6 41	6 31	6 20	6 09	5 58	5 47	5 36	5 26	5 15		20
	30	5 28	5 20	5 11	5 02	4 54	4 46	4 37	4 29	4 21	4 13	4 05	3 57		30
	40	3 40	3 34	3 27	3 22	3 16	3 11	3 05	3 00	2 54	2 49	2 44	2 39		40
	50	1 50	1 47	1 44	1 41	1 38	1 35	1 32	1 30	1 27	1 24	1 21	1 19		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 18°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 18°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0
	10	1 52	1 47	1 41	1 36	1 32	1 27	1 22	1 17	1 13	1 09	1 05	10
	20	3 44	3 32	3 22	3 13	3 02	2 53	2 44	2 35	2 26	2 18	2 10	20
	30	5 33	5 17	5 02	4 47	4 33	4 18	4 05	3 52	3 39	3 26	3 14	30
	40	7 23	7 01	6 41	6 21	6 02	5 43	5 25	5 08	4 51	4 34	4 17	40
	50	9 09	8 42	8 17	7 53	7 29	7 06	6 44	6 22	6 01	5 41	5 21	50
1	00	10 52	10 20	9 51	9 23	8 54	8 27	8 01	7 35	7 11	6 46	6 23	1
	10	12 33	11 57	11 23	10 50	10 17	9 47	9 17	8 47	8 19	7 50	7 24	10
	20	14 09	13 30	12 52	12 14	11 38	11 04	10 29	9 56	9 25	8 54	8 22	20
	30	15 42	14 58	14 17	13 36	12 57	12 18	11 42	11 05	10 29	9 54	9 21	30
	40	17 11	16 24	15 39	14 56	14 12	13 31	12 50	12 10	11 32	10 53	10 17	40
	50	18 35	17 45	16 57	16 10	15 25	14 39	13 55	13 13	12 31	11 50	11 11	50
2	00	19 56	19 03	18 12	17 22	16 33	15 45	14 59	14 13	13 29	12 45	12 03	2
	10	21 11	20 16	19 23	18 30	17 39	16 48	15 59	15 11	14 24	13 37	12 52	10
	20	22 22	21 24	20 31	19 34	18 40	17 48	16 57	16 05	15 16	14 25	13 40	20
	30	23 29	22 29	21 31	20 35	19 39	18 44	17 51	16 58	16 06	15 15	14 26	30
	40	24 30	23 30	22 30	21 32	20 34	19 38	18 42	17 48	16 54	16 00	15 08	40
	50	25 27	24 25	23 25	22 25	21 26	20 27	19 30	18 33	17 37	16 43	15 49	50
3	00	26 20	25 16	24 15	23 13	22 13	21 13	20 14	19 16	18 19	17 23	16 28	3
	10	27 09	26 04	25 01	23 59	22 57	21 57	20 56	19 56	18 58	18 00	17 03	10
	20	27 52	26 47	25 43	24 40	23 38	22 36	21 34	20 34	19 34	18 35	17 37	20
	30	28 32	27 27	26 22	25 18	24 15	23 12	22 09	21 08	20 07	19 07	18 07	30
	40	29 08	28 02	26 57	25 52	24 48	23 45	22 42	21 39	20 37	19 36	18 36	40
	50	29 39	28 33	27 27	26 23	25 19	24 14	23 10	22 07	21 05	20 03	19 01	50
4	00	30 07	29 01	27 55	26 50	25 45	24 40	23 37	22 33	21 29	20 27	19 24	4
	10	30 31	29 25	28 19	27 14	26 09	25 04	23 59	22 55	21 51	20 48	19 45	10
	20	30 52	29 46	28 40	27 35	26 29	25 24	24 19	23 15	22 11	21 07	20 04	20
	30	31 08	30 02	28 57	27 51	26 46	25 41	24 36	23 32	22 27	21 23	20 19	30
	40	31 22	30 16	29 10	28 06	27 00	25 55	24 50	23 45	22 41	21 37	20 33	40
	50	31 32	30 27	29 21	28 16	27 11	26 06	25 02	23 50	22 52	21 48	20 44	50
5	00	31 39	30 34	29 29	28 23	27 19	26 14	25 10	24 06	23 01	21 57	20 53	5
	10	31 42	30 38	29 33	28 29	27 25	26 20	25 16	24 11	23 07	22 03	20 59	10
	20	31 43	30 39	29 35	28 31	27 26	26 22	25 18	24 15	23 11	22 07	21 03	20
	30	31 41	30 37	29 33	28 30	27 27	26 23	25 19	24 16	23 12	22 09	21 05	30
	40	31 35	30 32	29 29	28 27	27 23	26 20	25 17	24 14	23 11	22 07	21 04	40
	50	31 27	30 24	29 22	28 20	27 18	26 15	25 13	24 10	23 07	22 04	21 01	50
6	00	31 16	30 15	29 13	28 11	27 09	26 07	25 06	24 03	23 01	21 59	20 57	6
	10	31 02	30 01	29 00	27 59	26 58	25 57	24 55	23 54	22 53	21 51	20 50	10
	20	30 46	29 46	28 46	27 45	26 45	25 45	24 44	23 43	22 43	21 42	20 40	20
	30	30 26	29 27	28 27	27 28	26 29	25 29	24 30	23 30	22 30	21 29	20 30	30
	40	30 04	29 06	28 07	27 09	26 10	25 12	24 13	23 14	22 15	21 16	20 16	40
	50	29 40	28 43	27 45	26 47	25 50	24 52	23 54	22 56	21 58	21 00	20 02	50
7	00	29 13	28 16	27 20	26 24	25 27	24 30	23 33	22 36	21 39	20 42	19 45	7
	10	28 43	27 48	26 53	25 57	25 02	24 06	23 10	22 13	21 17	20 21	19 25	10
	20	28 11	27 17	26 23	25 28	24 34	23 39	22 44	21 49	20 54	19 59	19 04	20
	30	27 38	26 44	25 51	24 58	24 05	23 11	22 17	21 23	20 29	19 35	18 42	30
	40	27 01	26 09	25 17	24 24	23 33	22 40	21 48	20 55	20 02	19 10	18 17	40
	50	26 22	25 31	24 40	23 49	22 58	22 08	21 17	20 25	19 34	18 43	17 51	50
8	00	25 41	24 51	24 01	23 12	22 22	21 32	20 43	19 53	19 03	18 13	17 22	8
	10	24 57	24 09	23 20	22 32	21 43	20 55	20 07	19 19	18 31	17 42	16 53	10
	20	24 11	23 24	22 37	21 50	21 04	20 17	19 30	18 43	17 56	17 09	16 22	20
	30	23 22	22 37	21 52	21 06	20 22	19 36	18 51	18 06	17 20	16 34	15 50	30
	40	22 33	21 49	21 05	20 22	19 38	18 53	18 10	17 26	16 42	15 59	15 14	40
	50	21 40	20 58	20 15	19 34	18 52	18 09	17 28	16 45	16 03	15 21	14 39	50
9	00	20 45	20 05	19 25	18 45	18 04	17 23	16 43	16 02	15 22	14 41	14 01	9
	10	19 49	19 10	18 31	17 53	17 14	16 35	15 57	15 19	14 40	14 01	13 23	10
	20	18 50	18 13	17 36	17 00	16 23	15 46	15 09	14 33	13 56	13 20	12 43	20
	30	17 50	17 15	16 39	16 05	15 30	14 55	14 21	13 45	13 11	12 37	12 02	30
	40	16 48	16 15	15 41	15 09	14 36	14 02	13 30	12 57	12 24	11 52	11 22	40
	50	15 44	15 13	14 41	14 10	13 40	13 09	12 38	12 07	11 37	11 06	10 36	50
10	00	14 38	14 09	13 40	13 11	12 42	12 14	11 45	11 17	10 48	10 20	9 51	10
	10	13 31	13 04	12 37	12 11	11 44	11 17	10 50	10 24	9 58	9 31	9 05	10
	20	12 22	11 57	11 33	11 08	10 44	10 20	9 55	9 32	9 07	8 43	8 18	20
	30	11 12	10 50	10 28	10 05	9 43	9 21	8 59	8 37	8 15	7 53	7 31	30
	40	10 00	9 41	9 20	8 58	8 41	8 21	8 01	7 42	7 22	7 03	6 43	40
	50	8 48	8 31	8 13	7 55	7 38	7 20	7 03	6 46	6 29	6 12	5 55	50
11	00	7 35	7 19	7 04	6 49	6 34	6 19	6 04	5 49	5 34	5 20	5 05	11
	10	6 21	6 07	5 55	5 42	5 29	5 17	5 04	4 51	4 40	4 27	4 15	10
	20	5 05	4 55	4 45	4 35	4 24	4 14	4 04	3 54	3 44	3 35	3 25	20
	30	3 49	3 42	3 34	3 27	3 18	3 11	3 04	2 56	2 49	2 42	2 34	30
	40	2 33	2 28	2 23	2 17	2 12	2 07	2 03	1 58	1 52	1 48	1 43	40
	50	1 16	1 14	1 11	1 09	1 06	1 04	1 03	1 01	0 59	0 57	0 51	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 19°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 19°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	24 30	20 40	17 47	15 35	13 49	12 22	11 11	10 11	9 19	8 36	7 57	7 23	0	10
0	20	42 03	36 47	32 29	28 58	26 02	23 34	21 28	19 40	18 07	16 45	15 32	14 28	0	20
0	30	53 02	47 51	43 20	39 23	35 57	32 57	30 19	28 00	25 57	24 09	22 31	21 03	0	30
0	40	59 57	55 17	51 01	47 08	43 39	40 28	37 38	35 03	32 44	30 37	28 43	26 57	0	40
0	50	64 32	60 23	56 30	52 52	49 30	46 22	43 30	40 51	38 25	36 10	34 05	32 10	0	50
1	00	67 38	63 58	60 28	57 07	53 58	50 59	48 12	45 35	43 07	40 49	38 41	36 40	1	00
1	10	69 50	66 33	63 23	60 20	57 25	54 36	51 57	49 24	47 00	44 44	42 35	40 33	1	10
1	20	71 25	68 28	65 35	62 47	60 05	57 28	54 57	52 32	50 12	47 59	45 52	43 51	1	20
1	30	72 34	69 54	67 15	64 42	62 11	59 44	57 22	55 04	52 50	50 42	48 38	46 39	1	30
1	40	73 25	70 58	68 33	66 10	63 50	61 33	59 18	57 08	55 01	52 57	50 58	49 02	1	40
1	50	74 01	71 46	69 31	67 18	65 09	63 00	60 53	58 50	56 49	54 51	52 55	51 03	1	50
2	00	74 28	72 22	70 17	68 13	66 11	64 09	62 10	60 13	58 18	56 25	54 34	52 46	2	00
2	10	74 46	72 48	70 51	68 55	67 00	65 06	63 13	61 21	59 31	57 43	55 57	54 12	2	10
2	20	74 57	73 06	71 16	69 27	67 38	65 50	64 03	62 17	60 31	58 48	57 07	55 26	2	20
2	30	75 02	73 19	71 34	69 50	68 07	66 25	64 43	63 02	61 21	59 42	58 04	56 26	2	30
2	40	75 04	73 24	71 46	70 09	68 29	66 52	65 15	63 37	62 01	60 26	58 52	57 18	2	40
2	50	75 01	73 26	71 52	70 18	68 46	67 12	65 39	64 06	62 33	61 02	59 31	58 01	2	50
3	00	74 55	73 24	71 54	70 25	68 56	67 26	65 57	64 28	62 59	61 30	60 03	58 35	3	00
3	10	74 45	73 19	71 53	70 27	69 01	67 35	66 09	64 44	63 17	61 52	60 28	59 03	3	10
3	20	74 34	73 11	71 48	70 25	69 02	67 39	66 16	64 55	63 32	62 09	60 47	59 25	3	20
3	30	74 19	72 59	71 40	70 20	69 01	67 40	66 20	65 00	63 40	62 21	61 01	59 42	3	30
3	40	74 02	72 46	71 29	70 11	68 54	67 37	66 20	65 03	63 44	62 27	61 10	59 53	3	40
3	50	73 44	72 30	71 15	70 00	68 45	67 30	66 16	65 01	63 45	62 30	61 15	59 59	3	50
4	00	73 24	72 12	70 59	69 46	68 34	67 21	66 09	64 55	63 42	62 29	61 15	60 03	4	00
4	10	73 02	71 51	70 41	69 31	68 20	67 09	65 58	64 46	63 35	62 24	61 13	60 01	4	10
4	20	72 38	71 30	70 22	69 12	68 03	66 54	65 45	64 35	63 26	62 16	61 06	59 56	4	20
4	30	72 13	71 06	69 59	68 52	67 44	66 36	65 29	64 21	63 13	62 06	60 57	59 49	4	30
4	40	71 46	70 40	69 35	68 29	67 23	66 17	65 11	64 05	62 58	61 51	60 45	59 37	4	40
4	50	71 17	70 13	69 09	68 05	67 00	65 55	64 50	63 46	62 41	61 35	60 30	59 24	4	50
5	00	70 47	69 44	68 41	67 38	66 34	65 31	64 27	63 23	62 19	61 16	60 11	59 07	5	00
5	10	70 15	69 14	68 12	67 09	66 07	65 04	64 02	62 59	61 56	60 54	59 51	58 47	5	10
5	20	69 41	68 41	67 40	66 38	65 38	64 36	63 35	62 33	61 31	60 29	59 27	58 25	5	20
5	30	69 06	68 06	67 06	66 06	65 06	64 05	63 05	62 05	61 04	60 03	59 01	58 00	5	30
5	40	68 29	67 31	66 32	65 31	64 32	63 32	62 33	61 33	60 33	59 33	58 33	57 33	5	40
5	50	67 51	66 53	65 54	64 55	63 57	62 57	61 59	61 00	60 00	59 01	58 02	57 03	5	50
6	00	67 10	66 12	65 14	64 16	63 19	62 20	61 22	60 24	59 25	58 27	57 28	56 29	6	00
6	10	66 28	65 30	64 33	63 36	62 38	61 41	60 44	59 46	58 48	57 50	56 52	55 55	6	10
6	20	65 43	64 46	63 50	62 53	61 56	60 59	60 02	59 06	58 09	57 11	56 14	55 17	6	20
6	30	64 57	64 00	63 04	62 08	61 12	60 15	59 19	58 22	57 25	56 29	55 33	54 36	6	30
6	40	64 08	63 12	62 17	61 21	60 25	59 28	58 33	57 37	56 41	55 46	54 49	53 53	6	40
6	50	63 17	62 21	61 26	60 30	59 35	58 39	57 44	56 49	55 53	54 58	54 02	53 07	6	50
7	00	62 23	61 28	60 33	59 37	58 43	57 48	56 53	55 59	55 03	54 09	53 14	52 19	7	00
7	10	61 27	60 32	59 38	58 42	57 47	56 53	55 59	55 04	54 10	53 16	52 22	51 27	7	10
7	20	60 28	59 33	58 39	57 45	56 50	55 56	55 02	54 08	53 14	52 21	51 26	50 33	7	20
7	30	59 26	58 31	57 37	56 43	55 50	54 55	54 02	53 09	52 15	51 21	50 28	49 35	7	30
7	40	58 21	57 27	56 33	55 39	54 46	53 52	52 59	52 06	51 13	50 20	49 27	48 35	7	40
7	50	57 13	56 19	55 25	54 32	53 39	52 45	51 53	51 00	50 07	49 16	48 24	47 31	7	50
8	00	56 01	55 07	54 14	53 20	52 27	51 35	50 42	49 50	48 59	48 06	47 15	46 24	8	00
8	10	54 46	53 52	52 58	52 05	51 14	50 21	49 29	48 38	47 46	46 55	46 04	45 13	8	10
8	20	53 26	52 32	51 40	50 46	49 55	49 02	48 12	47 21	46 30	45 40	44 49	43 59	8	20
8	30	52 02	51 08	50 16	49 24	48 33	47 41	46 51	46 00	45 10	44 20	43 30	42 42	8	30
8	40	50 33	49 41	48 49	47 57	47 06	46 15	45 25	44 35	43 45	42 57	42 08	41 20	8	40
8	50	49 00	48 08	47 16	46 24	45 35	44 45	43 55	43 06	42 17	41 29	40 42	39 54	8	50
9	00	47 21	46 30	45 39	44 48	43 58	43 09	42 20	41 32	40 44	39 57	39 11	38 24	9	00
9	10	45 37	44 47	43 57	43 06	42 18	41 29	40 41	39 54	39 06	38 21	37 35	36 50	9	10
9	20	43 48	42 57	42 08	41 19	40 31	39 44	38 57	38 11	37 25	36 40	35 56	35 12	9	20
9	30	41 52	41 02	40 15	39 27	38 39	37 53	37 08	36 22	35 39	34 55	34 12	33 29	9	30
9	40	39 50	39 02	38 14	37 28	36 42	35 57	35 13	34 30	33 46	33 05	32 23	31 42	9	40
9	50	37 41	36 54	36 09	35 23	34 39	33 55	33 13	32 31	31 50	31 10	30 30	29 51	9	50
10	00	35 26	34 40	33 56	33 12	32 30	31 49	31 08	30 28	29 48	29 10	28 32	27 55	10	00
10	10	33 03	32 20	31 37	30 56	30 15	29 36	28 57	28 19	27 42	27 06	26 32	25 55	10	10
10	20	30 33	29 52	29 13	28 33	27 55	27 17	26 41	26 05	25 30	24 57	24 23	23 50	10	20
10	30	27 56	27 17	26 41	26 05	25 29	24 54	24 20	23 46	23 14	22 42	22 11	21 41	10	30
10	40	25 12	24 36	24 02	23 28	22 55	22 23	21 52	21 22	20 53	20 24	19 56	19 27	10	40
10	50	22 21	21 49	21 18	20 47	20 18	19 49	19 21	18 54	18 27	18 01	17 36	17 11	10	50
11	00	19 23	18 54	18 27	18 00	17 34	17 09	16 44	16 21	15 57	15 35	15 12	14 50	11	00
11	10	16 19	15 55	15 32	15 08	14 47	14 25	14 04	13 44	13 24	13 05	12 46	12 27	11	10
11	20	13 11	12 51	12 31	12 12	11 54	11 37	11 20	11 03	10 47	10 31	10 16	10 01	11	20
11	30	9 57	9 42	9 27	9 13	8 59	8 45	8 32	8 20	8 08	7 56	7 44	7 33	11	30
11	40	6 40	6 29	6 20	6 11	6 01	5 52	5 43	5 35	5 26	5 19	5 11	5 03	11	40
11	50	3 20	3 16	3 10	3 05	3 01	2 57	2 52	2 47	2 44	2 40	2 36	2 32	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 19°.				DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 19°.			
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.					
h.	m.	°	'	°	'	°	'	°	'	°	'	°	'	h.	m.				
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00				
	10	6 53	6 25	6 02	5 39	5 19	5 01	4 44	4 29	4 15	4 01	3 49	3 38		10				
	20	13 31	12 40	11 52	11 10	10 32	9 57	9 23	8 53	8 26	7 59	7 35	7 12		20				
	30	19 43	18 31	17 25	16 25	15 30	14 39	13 52	13 08	12 28	11 51	11 15	10 42		30				
	40	25 22	23 54	22 34	21 19	20 10	19 07	18 07	17 12	16 20	15 32	14 46	14 03		40				
	50	30 23	28 44	27 13	25 48	24 29	23 14	22 05	21 00	19 59	19 01	18 07	17 16		50				
1	00	34 47	33 02	31 23	29 51	28 24	27 01	25 44	24 31	23 23	22 18	21 16	20 18	1	00				
	10	38 37	36 48	35 04	33 27	31 55	30 27	29 04	27 46	26 31	25 20	24 13	23 09		10				
	20	41 55	40 05	38 19	36 38	35 03	33 32	32 05	30 43	29 24	28 08	26 56	25 47		20				
	30	44 45	42 55	41 09	39 27	37 51	36 18	34 48	33 22	32 00	30 41	29 26	28 13		30				
	40	47 09	45 21	43 37	41 55	40 18	38 44	37 13	35 47	34 22	33 00	31 43	30 27		40				
	50	49 14	47 28	45 45	44 04	42 28	40 54	39 23	37 55	36 29	35 06	33 40	32 29		50				
2	00	50 59	49 16	47 36	45 57	44 21	42 48	41 17	39 49	38 23	36 59	35 39	34 20	2	00				
	10	52 30	50 49	49 10	47 34	46 01	44 28	42 58	41 31	40 05	38 42	37 20	36 01		10				
	20	53 46	52 09	50 33	48 59	47 27	45 56	44 27	43 00	41 35	40 11	38 50	37 31		20				
	30	54 51	53 16	51 43	50 12	48 41	47 12	45 45	44 19	42 55	41 32	40 11	38 52		30				
	40	55 45	54 14	52 44	51 14	49 46	48 19	46 52	45 28	44 06	42 43	41 23	40 03		40				
	50	56 31	55 02	53 34	52 07	50 41	49 16	47 52	46 29	45 07	43 45	42 25	41 07		50				
3	00	57 08	55 42	54 16	52 52	51 28	50 04	48 42	47 21	46 00	44 40	43 21	42 04	3	00				
	10	57 38	56 15	54 52	53 30	52 07	50 46	49 26	48 05	46 46	45 27	44 10	42 53		10				
	20	58 03	56 42	55 21	54 00	52 40	51 21	50 01	48 43	47 26	46 08	44 51	43 36		20				
	30	58 22	57 02	55 44	54 25	53 08	51 50	50 33	49 16	47 59	46 43	45 27	44 13		30				
	40	58 35	57 18	56 02	54 45	53 28	52 13	50 57	49 41	48 27	47 11	45 57	44 43		40				
	50	58 44	57 29	56 14	54 59	53 45	52 30	51 16	50 02	48 49	47 35	46 22	45 09		50				
4	00	58 49	57 35	56 23	55 09	53 57	52 44	51 30	50 19	49 06	47 53	46 41	45 30	4	00				
	10	58 50	57 39	56 26	55 15	54 04	52 52	51 41	50 30	49 18	48 07	46 57	45 46		10				
	20	58 46	57 37	56 27	55 16	54 06	52 56	51 46	50 36	49 27	48 17	47 07	45 57		20				
	30	58 40	57 32	56 23	55 15	54 06	52 57	51 49	50 40	49 31	48 23	47 14	46 05		30				
	40	58 31	57 23	56 16	55 09	54 02	52 54	51 47	50 40	49 32	48 24	47 17	46 10		40				
	50	58 18	57 12	56 06	55 00	53 54	52 47	51 41	50 36	49 29	48 23	47 16	46 09		50				
5	00	58 02	56 58	55 53	54 48	53 43	52 38	51 33	50 28	49 22	48 17	47 11	46 06	5	00				
	10	57 43	56 40	55 37	54 33	53 29	52 25	51 21	50 17	49 12	48 08	47 03	45 59		10				
	20	57 22	56 20	55 17	54 14	53 12	52 09	51 06	50 03	48 59	47 55	46 52	45 49		20				
	30	56 58	55 57	54 55	53 54	52 52	51 50	50 47	49 45	48 43	47 40	46 38	45 35		30				
	40	56 32	55 31	54 30	53 29	52 29	51 27	50 26	49 25	48 23	47 21	46 21	45 19		40				
	50	56 03	55 03	54 03	53 03	52 03	51 02	50 03	49 02	48 02	47 01	45 59	44 59		50				
6	00	55 30	54 32	53 33	52 33	51 34	50 34	49 35	48 36	47 37	46 37	45 37	44 37	6	00				
	10	54 56	53 57	52 59	52 01	51 03	50 04	49 06	48 07	47 08	46 09	45 10	44 11		10				
	20	54 19	53 22	52 24	51 26	50 29	49 31	48 33	47 35	46 37	45 39	44 41	43 43		20				
	30	53 39	52 43	51 46	50 49	49 53	48 55	47 58	47 00	46 03	45 06	44 08	43 11		30				
	40	52 56	52 01	51 05	50 08	49 12	48 16	47 20	46 24	45 27	44 30	43 33	42 37		40				
	50	52 12	51 16	50 21	49 26	48 30	47 34	46 39	45 43	44 47	43 52	42 55	42 00		50				
7	00	51 24	50 29	49 34	48 39	47 44	46 49	45 55	45 00	44 05	43 10	42 15	41 20	7	00				
	10	50 33	49 39	48 45	47 50	46 56	46 01	45 08	44 14	43 20	42 26	41 32	40 37		10				
	20	49 39	48 46	47 52	46 58	46 06	45 12	44 18	43 25	42 31	41 39	40 45	39 52		20				
	30	48 42	47 49	46 57	46 04	45 11	44 18	43 26	42 34	41 40	40 48	39 56	39 03		30				
	40	47 42	46 50	45 58	45 05	44 14	43 22	42 30	41 39	40 47	39 55	39 04	38 12		40				
	50	46 40	45 48	44 56	44 05	43 14	42 22	41 31	40 41	39 51	38 59	38 09	37 18		50				
8	00	45 32	44 42	43 51	43 01	42 11	41 19	40 29	39 40	38 50	38 00	37 10	36 21	8	00				
	10	44 23	43 33	42 43	41 53	41 04	40 13	39 25	38 36	37 47	36 58	36 10	35 21		10				
	20	43 09	42 20	41 31	40 42	39 54	39 05	38 17	37 29	36 41	35 53	35 06	34 19		20				
	30	41 52	41 03	40 16	39 27	38 40	37 52	37 05	36 19	35 32	34 45	33 59	33 12		30				
	40	40 31	39 44	38 57	38 10	37 23	36 36	35 50	35 05	34 19	33 34	32 49	32 03		40				
	50	39 06	38 21	37 34	36 48	36 03	35 17	34 32	33 47	33 04	32 20	31 35	30 52		50				
9	00	37 38	36 52	36 07	35 23	34 39	33 54	33 10	32 27	31 44	31 01	30 19	29 36	9	00				
	10	36 05	35 21	34 36	33 53	33 11	32 27	31 45	31 04	30 22	29 41	28 59	28 19		10				
	20	34 29	33 46	33 02	32 21	31 40	30 58	30 17	29 36	28 56	28 17	27 37	26 58		20				
	30	32 47	32 06	31 24	30 44	30 04	29 24	28 44	28 06	27 27	26 49	26 12	25 34		30				
	40	31 02	30 21	29 42	29 03	28 25	27 47	27 10	26 33	25 55	25 19	24 43	24 07		40				
	50	29 12	28 34	27 56	27 19	26 42	26 07	25 30	24 55	24 21	23 46	23 12	22 39		50				
10	00	27 18	26 42	26 06	25 31	24 56	24 22	23 48	23 16	22 43	22 10	21 38	21 06	10	00				
	10	25 19	24 45	24 12	23 39	23 07	22 34	22 03	21 32	21 01	20 30	20 00	19 31		10				
	20	23 17	22 45	22 14	21 44	21 14	20 43	20 14	19 45	19 17	18 49	18 21	17 53		20				
	30	21 11	20 42	20 13	19 44	19 17	18 49	18 23	17 56	17 30	17 04	16 39	16 14		30				
	40	19 00	18 34	18 07	17 42	17 17	16 52	16 28	16 04	15 40	15 17	14 54	14 31		40				
	50	16 47	16 23	16 00	15 37	15 14	14 52	14 31	14 10	13 49	13 28	13 08	12 47		50				
11	00	14 30	14 09	13 48	13 28	13 09	12 49	12 31	12 12	11 54	11 36	11 19	11 02	11	00				
	10	12 09	11 52	11 34	11 18	11 01	10 45	10 29	10 14	9 58	9 43	9 29	9 13		10				
	20	9 47	9 33	9 19	9 05	8 52	8 39	8 25	8 13	8 01	7 48	7 37	7 25		20				
	30	7 21	7 11	7 01	6 50	6 40	6 30	6 21	6 11	6 02	5 52	5 44	5 35		30				
	40	4 56	4 48	4 40	4 34	4 28	4 21	4 14	4 08	4 02	3 55	3 49	3 44		40				
	50	2 28	2 25	2 21	2 17	2 14	2 10	2 08	2 04	2 01	1 58	1 55	1 52		50				
	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		00				
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00				

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 19°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 19°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	3 26	3 17	3 07	2 58	2 50	2 41	2 33	2 27	2 19	2 12	2 06	2 00		10
	20	6 50	6 31	6 12	5 54	5 37	5 21	5 05	4 51	4 38	4 24	4 12	4 00		20
	30	10 11	9 42	9 14	8 47	8 22	7 59	7 36	7 14	6 53	6 34	6 15	5 57		30
	40	13 24	12 45	12 09	11 36	11 03	10 32	10 03	9 34	9 07	8 41	8 17	7 54		40
	50	16 28	15 42	14 59	14 18	13 38	13 01	12 25	11 50	11 18	10 46	10 16	9 46		50
1	00	19 22	18 30	17 40	16 52	16 07	15 23	14 41	14 01	13 23	12 46	12 11	11 37	1	00
	10	22 07	21 09	20 14	19 20	18 29	17 40	16 53	16 07	15 24	14 43	14 02	13 23		10
	20	24 41	23 37	22 37	21 39	20 43	19 50	18 58	18 08	17 20	16 34	15 49	15 06		20
	30	27 03	25 56	24 52	23 50	22 50	21 52	20 56	20 01	19 10	18 20	17 31	16 44		30
	40	29 15	28 04	26 57	25 51	24 47	23 46	22 48	21 50	20 54	20 00	19 08	18 17		40
	50	31 14	30 01	28 51	27 44	26 37	25 33	24 30	23 30	22 32	21 35	20 39	19 46		50
2	00	33 04	31 50	30 37	29 27	28 19	27 13	26 08	25 04	24 03	23 04	22 06	21 10	2	00
	10	34 43	33 27	32 14	31 02	29 52	28 45	27 38	26 32	25 29	24 27	23 27	22 28		10
	20	36 13	34 56	33 42	32 30	31 18	30 08	29 00	27 53	26 49	25 45	24 42	23 42		20
	30	37 33	36 17	35 02	33 48	32 36	31 26	30 17	29 08	28 02	26 57	25 53	24 49		30
	40	38 46	37 29	36 13	35 00	33 47	32 36	31 26	30 17	29 09	28 03	26 57	25 53		40
	50	39 50	38 34	37 19	36 04	34 51	33 39	32 29	31 19	30 11	29 04	27 57	26 52		50
3	00	40 47	39 31	38 16	37 02	35 49	34 37	33 26	32 16	31 07	29 59	28 51	27 46	3	00
	10	41 37	40 21	39 07	37 53	36 40	35 29	34 17	33 06	31 58	30 49	29 41	28 35		10
	20	42 18	41 05	39 51	38 38	37 26	36 14	35 03	33 52	32 43	31 35	30 26	29 18		20
	30	42 58	41 44	40 31	39 18	38 06	36 54	35 43	34 33	33 24	32 15	31 07	29 58		30
	40	43 30	42 16	41 04	39 52	38 41	37 29	36 19	35 09	34 00	32 51	31 42	30 34		40
	50	43 57	42 45	41 33	40 21	39 10	38 00	36 49	35 39	34 30	33 22	32 13	31 05		50
4	00	44 18	43 07	41 56	40 45	39 35	38 26	37 16	36 06	34 57	33 49	32 40	31 33	4	00
	10	44 36	43 25	42 15	41 05	39 56	38 47	37 37	36 28	35 20	34 12	33 04	31 56		10
	20	44 48	43 39	42 30	41 21	40 12	39 03	37 55	36 47	35 39	34 30	33 23	32 16		20
	30	44 57	43 48	42 40	41 32	40 24	39 16	38 08	37 01	35 53	34 45	33 38	32 31		30
	40	45 01	43 54	42 47	41 39	40 32	39 25	38 17	37 10	36 04	34 57	33 50	32 44		40
	50	45 03	43 56	42 49	41 43	40 36	39 31	38 24	37 17	36 11	35 05	33 58	32 52		50
5	00	45 00	43 55	42 49	41 44	40 37	39 32	38 26	37 20	36 15	35 09	34 04	32 58	5	00
	10	44 54	43 50	42 45	41 39	40 35	39 31	38 25	37 20	36 16	35 11	34 05	33 00		10
	20	44 45	43 41	42 37	41 33	40 29	39 25	38 20	37 16	36 13	35 08	34 04	32 59		20
	30	44 32	43 29	42 27	41 23	40 20	39 17	38 13	37 09	36 07	35 03	33 59	32 55		30
	40	44 17	43 14	42 12	41 11	40 08	39 06	38 03	36 59	35 57	34 55	33 52	32 49		40
	50	43 58	42 56	41 55	40 54	39 53	38 51	37 49	36 47	35 45	34 43	33 41	32 38		50
6	00	43 36	42 36	41 35	40 34	39 34	38 33	37 33	36 31	35 30	34 29	33 28	32 26	6	00
	10	43 11	42 12	41 12	40 12	39 12	38 13	37 13	36 12	35 12	34 12	33 11	32 10		10
	20	42 44	41 45	40 47	39 48	38 48	37 50	36 51	35 50	34 52	33 53	32 52	31 52		20
	30	42 13	41 15	40 18	39 20	38 21	37 24	36 25	35 26	34 28	33 30	32 30	31 32		30
	40	41 40	40 42	39 46	38 49	37 52	36 55	35 58	35 00	34 02	33 05	32 06	31 08		40
	50	41 04	40 08	39 12	38 15	37 19	36 23	35 26	34 30	33 33	32 36	31 39	30 42		50
7	00	40 25	39 30	38 35	37 39	36 44	35 48	34 53	33 57	33 01	32 06	31 09	30 13	7	00
	10	39 43	38 49	37 55	37 00	36 05	35 12	34 17	33 22	32 27	31 33	30 37	29 42		10
	20	38 59	38 05	37 12	36 19	35 25	34 31	33 37	32 43	31 50	30 57	30 02	29 08		20
	30	38 11	37 18	36 26	35 34	34 41	33 49	32 56	32 03	31 11	30 19	29 25	28 33		30
	40	37 20	36 29	35 38	34 46	33 55	33 04	32 12	31 20	30 29	29 38	28 46	27 54		40
	50	36 27	35 37	34 47	33 57	33 06	32 16	31 26	30 35	29 45	28 54	28 04	27 14		50
8	00	35 31	34 42	33 53	33 04	32 14	31 25	30 36	29 46	28 58	28 09	27 20	26 31	8	00
	10	34 33	33 44	32 57	32 09	31 20	30 32	29 44	28 56	28 09	27 21	26 33	25 44		10
	20	33 31	32 43	31 57	31 10	30 23	29 27	28 50	28 04	27 17	26 31	25 44	24 58		20
	30	32 27	31 40	30 55	30 09	29 23	28 39	27 53	27 08	26 23	25 38	24 52	24 07		30
	40	31 19	30 34	29 50	29 05	28 21	27 37	26 53	26 09	25 26	24 43	23 59	23 15		40
	50	30 08	29 25	28 42	27 59	27 16	26 34	25 51	25 09	24 27	23 45	23 03	22 20		50
9	00	29 55	28 13	27 31	26 50	26 09	25 28	24 47	24 06	23 26	22 45	22 05	21 24	9	00
	10	27 38	26 58	26 19	25 38	24 59	24 19	23 39	23 01	22 23	21 43	21 04	20 25		10
	20	26 19	25 40	25 02	24 24	23 46	23 08	22 31	21 53	21 17	20 40	20 02	19 25		20
	30	24 57	24 20	23 44	23 07	22 31	21 55	21 19	20 44	20 09	19 33	18 58	18 23		30
	40	23 32	22 57	22 23	21 48	21 13	20 40	20 05	19 32	18 59	18 25	17 51	17 19		40
	50	22 05	21 31	20 59	20 26	19 54	19 21	18 50	18 18	17 47	17 15	16 44	16 12		50
10	00	20 35	20 03	19 32	19 02	18 32	18 01	17 32	17 02	16 33	16 03	15 34	15 04	10	00
	10	19 02	18 32	18 04	17 36	17 07	16 39	16 11	15 43	15 17	14 50	14 22	13 55		10
	20	17 26	16 59	16 33	16 07	15 41	15 15	14 50	14 24	13 59	13 34	13 10	12 44		20
	30	15 49	15 25	15 01	14 36	14 13	13 49	13 26	13 03	12 40	12 17	11 55	11 33		30
	40	14 09	13 47	13 26	13 04	12 43	12 21	12 01	11 40	11 20	10 59	10 39	10 19		40
	50	12 27	12 08	11 49	11 30	11 11	10 53	10 34	10 15	9 58	9 40	9 22	9 04		50
11	00	10 44	10 28	10 11	9 54	9 38	9 22	9 06	8 50	8 34	8 19	8 03	7 48	11	00
	10	8 59	8 46	8 31	8 17	8 04	7 50	7 37	7 23	7 11	6 58	6 44	6 31		10
	20	7 14	7 02	6 50	6 39	6 28	6 17	6 07	5 56	5 46	5 35	5 25	5 15		20
	30	5 25	5 17	5 09	5 00	4 51	4 44	4 36	4 28	4 20	4 12	4 04	3 56		30
	40	3 38	3 32	3 26	3 21	3 15	3 10	3 04	2 59	2 54	2 48	2 43	2 38		40
	50	1 49	1 46	1 44	1 41	1 38	1 35	1 32	1 29	1 27	1 24	1 22	1 19		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 19°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 19°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	1	2	3	4	5	6	7	8	9	0	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	1 54	1 48	1 44	1 38	1 33	1 28	1 24	1 19	1 14	1 10	1 06		10	
	20	3 48	3 37	3 26	3 16	3 05	2 56	2 46	2 37	2 28	2 20	2 11		20	
	30	5 40	5 24	5 08	4 52	4 37	4 22	4 09	3 55	3 42	3 29	3 17		30	
	40	7 31	7 09	6 47	6 27	6 08	5 49	5 30	5 12	4 55	4 38	4 22		40	
	50	9 19	8 52	8 26	8 01	7 36	7 13	6 50	6 28	6 07	5 46	5 25		50	
1	00	11 05	10 32	10 01	9 32	9 03	8 35	8 09	7 42	7 17	6 52	6 28	1	00	
	10	12 46	12 10	11 35	11 01	10 28	9 56	9 25	8 55	8 26	7 57	7 29		10	
	20	14 26	13 44	13 04	12 26	11 50	11 14	10 39	10 05	9 33	9 01	8 29		20	
	30	15 58	15 14	14 31	13 49	13 10	12 30	11 52	11 14	10 38	10 03	9 27		30	
	40	17 28	16 41	15 54	15 09	14 26	13 43	13 00	12 20	11 41	11 02	10 24		40	
	50	18 54	18 03	17 14	16 26	15 39	14 52	14 07	13 24	12 41	12 00	11 18		50	
2	00	20 15	19 21	18 28	17 38	16 48	15 59	15 11	14 25	13 39	12 55	12 11	2	00	
	10	21 31	20 35	19 40	18 46	17 53	17 02	16 12	15 23	14 35	13 48	13 01		10	
	20	22 42	21 44	20 47	19 51	18 56	18 02	17 09	16 18	15 28	14 39	13 50		20	
	30	23 49	22 49	21 49	20 52	19 55	18 59	18 05	17 11	16 18	15 26	14 35		30	
	40	24 51	23 49	22 48	21 49	20 50	19 53	18 55	18 00	17 05	16 12	15 18		40	
	50	25 47	24 45	23 43	22 42	21 42	20 42	19 44	18 47	17 50	16 54	15 59		50	
3	00	26 40	25 36	24 33	23 31	22 29	21 29	20 29	19 30	18 32	17 34	16 37	3	00	
	10	27 29	26 24	25 20	24 16	23 14	22 12	21 10	20 11	19 11	18 12	17 13		10	
	20	28 13	27 07	26 01	24 57	23 53	22 50	21 48	20 47	19 47	18 47	17 46		20	
	30	28 52	27 46	26 40	25 35	24 30	23 27	22 24	21 21	20 19	19 19	18 18		30	
	40	29 27	28 21	27 14	26 09	25 03	23 58	22 55	21 53	20 50	19 48	18 45		40	
	50	29 58	28 51	27 45	26 39	25 34	24 28	23 24	22 20	21 18	20 15	19 12		50	
4	00	30 26	29 18	28 11	27 06	26 00	24 55	23 50	22 45	21 41	20 38	19 34	4	00	
	10	30 49	29 42	28 35	27 29	26 24	25 18	24 13	23 08	22 04	20 59	19 55		10	
	20	31 08	30 02	28 55	27 49	26 42	25 37	24 31	23 27	22 22	21 18	20 14		20	
	30	31 25	30 18	29 12	28 06	27 00	25 54	24 48	23 43	22 38	21 34	20 28		30	
	40	31 37	30 31	29 24	28 19	27 13	26 07	25 02	23 56	22 51	21 47	20 42		40	
	50	31 47	30 41	29 35	28 29	27 24	26 18	25 12	24 07	23 03	21 58	20 53		50	
5	00	31 53	30 47	29 42	28 36	27 31	26 26	25 20	24 15	23 11	22 06	21 01	5	00	
	10	31 56	30 51	29 46	28 41	27 35	26 30	25 25	24 21	23 17	22 12	21 07		10	
	20	31 56	30 51	29 46	28 42	27 37	26 32	25 28	24 24	23 20	22 15	21 11		20	
	30	31 52	30 48	29 44	28 40	27 37	26 32	25 28	24 24	23 20	22 16	21 13		30	
	40	31 45	30 42	29 39	28 37	27 33	26 29	25 25	24 22	23 19	22 16	21 12		40	
	50	31 37	30 34	29 31	28 29	27 27	26 23	25 21	24 18	23 15	22 12	21 08		50	
6	00	31 24	30 23	29 21	28 19	27 17	26 15	25 12	24 10	23 08	22 06	21 03	6	00	
	10	31 10	30 09	29 08	28 07	27 05	26 04	25 03	24 01	23 00	21 58	20 56		10	
	20	30 53	29 53	28 53	27 52	26 52	25 51	24 50	23 50	22 49	21 47	20 46		20	
	30	30 33	29 34	28 34	27 35	26 35	25 36	24 35	23 35	22 36	21 36	20 34		30	
	40	30 10	29 12	28 14	27 15	26 17	25 18	24 18	23 19	22 21	21 21	20 21		40	
	50	29 45	28 48	27 50	26 53	25 55	24 57	23 59	23 01	22 03	21 04	20 06		50	
7	00	29 18	28 21	27 25	26 29	25 32	24 35	23 38	22 40	21 43	20 46	19 48	7	00	
	10	28 48	27 52	26 57	26 01	25 06	24 10	23 14	22 18	21 22	20 26	19 29		10	
	20	28 15	27 21	26 27	25 32	24 37	23 42	22 48	21 53	20 58	20 03	19 07		20	
	30	27 40	26 48	25 54	25 01	24 07	23 14	22 20	21 27	20 33	19 39	18 45		30	
	40	27 02	26 11	25 19	24 27	23 35	22 43	21 50	20 57	20 05	19 13	18 20		40	
	50	26 23	25 33	24 43	23 51	23 00	22 09	21 19	20 27	19 36	18 45	17 53		50	
8	00	25 41	24 52	24 03	23 14	22 24	21 34	20 45	19 55	19 05	18 15	17 25	8	00	
	10	24 57	24 09	23 21	22 34	21 46	20 58	20 09	19 21	18 32	17 44	16 55		10	
	20	24 11	23 25	22 38	21 52	21 04	20 18	19 31	18 44	17 58	17 11	16 23		20	
	30	23 22	22 38	21 53	21 08	20 23	19 37	18 52	18 07	17 21	16 36	15 50		30	
	40	22 32	21 49	21 05	20 22	19 38	18 54	18 11	17 27	16 43	16 00	15 16		40	
	50	21 39	20 57	20 15	19 34	18 52	18 09	17 28	16 46	16 04	15 22	14 39		50	
9	00	20 44	20 04	19 23	18 43	18 03	17 23	16 43	16 03	15 23	14 43	14 02	9	00	
	10	19 47	19 08	18 31	17 53	17 14	16 36	15 57	15 19	14 40	14 02	13 23		10	
	20	18 49	18 12	17 36	17 00	16 22	15 46	15 10	14 33	13 57	13 20	12 43		20	
	30	17 48	17 13	16 38	16 04	15 30	14 55	14 20	13 46	13 11	12 36	12 02		30	
	40	16 45	16 12	15 40	15 07	14 35	14 02	13 29	12 57	12 25	11 52	11 19		40	
	50	15 42	15 11	14 40	14 09	13 39	13 08	12 37	12 08	11 36	11 06	10 35		50	
10	00	14 36	14 07	13 38	13 10	12 41	12 13	11 45	11 16	10 47	10 19	9 51	10	00	
	10	13 29	13 02	12 35	12 09	11 42	11 16	10 50	10 24	9 57	9 31	9 03		10	
	20	12 20	11 56	11 31	11 07	10 43	10 19	9 55	9 30	9 07	8 43	8 19		20	
	30	11 10	10 48	10 26	10 04	9 42	9 20	8 59	8 36	8 15	7 53	7 31		30	
	40	9 58	9 39	9 19	9 00	8 40	8 20	8 01	7 41	7 22	7 02	6 42		40	
	50	8 46	8 29	8 11	7 54	7 37	7 19	7 02	6 45	6 28	6 11	5 54		50	
11	00	7 33	7 18	7 03	6 48	6 33	6 18	6 04	5 49	5 34	5 20	5 04	11	00	
	10	6 19	6 06	5 54	5 41	5 29	5 16	5 04	4 52	4 39	4 27	4 15		10	
	20	5 05	4 54	4 44	4 34	4 23	4 14	4 03	3 54	3 44	3 34	3 25		20	
	30	3 49	3 41	3 33	3 26	3 18	3 11	3 03	2 56	2 48	2 41	2 33		30	
	40	2 33	2 28	2 23	2 18	2 12	2 07	2 02	1 56	1 52	1 48	1 42		40	
	50	1 16	1 14	1 11	1 09	1 07	1 04	1 01	0 59	0 56	0 54	0 52		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 20°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 20°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	°	'	°	'	°	'	°	'	°	'	°	'	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	29 38	24 20	20 31	17 39	15 26	13 41	12 15	11 04	10 05	9 13	8 30	7 51		10
	20	48 18	41 49	36 32	32 16	28 45	25 49	23 21	21 16	19 29	17 56	16 33	15 22		20
	30	58 44	52 48	47 35	43 03	39 06	35 40	32 41	30 04	27 45	25 42	23 53	22 15		30
	40	64 51	59 44	55 01	50 44	46 50	43 20	40 10	37 19	34 45	32 25	30 20	28 24		40
	50	68 41	64 17	60 07	56 12	52 34	49 11	46 03	43 10	40 31	38 04	35 49	33 44		50
1	00	71 14	67 23	63 41	60 10	56 49	53 39	50 39	47 50	45 14	42 45	40 27	38 19	1	00
	10	72 58	69 35	66 17	63 06	60 02	57 05	54 16	51 35	49 03	46 38	44 21	42 11		10
	20	74 10	71 09	68 11	65 17	62 28	59 45	57 07	54 34	52 09	49 49	47 35	45 27		20
	30	75 01	72 18	69 36	66 57	64 22	61 50	59 23	56 59	54 41	52 27	50 17	48 12		30
	40	75 37	73 08	70 40	68 13	65 50	63 29	61 11	58 55	56 45	54 37	52 33	50 32		40
	50	76 01	73 44	71 27	69 12	66 58	64 46	62 37	60 30	58 26	56 24	54 25	52 29		50
2	00	76 16	74 08	72 02	69 56	67 52	65 48	63 47	61 46	59 49	57 52	55 59	54 07	2	00
	10	76 25	74 26	72 28	70 30	68 32	66 36	64 41	62 48	60 56	59 05	57 16	55 29		10
	20	76 28	74 36	72 45	70 54	69 03	67 14	65 25	63 37	61 50	60 04	58 21	56 38		20
	30	76 25	74 41	72 55	71 11	69 26	67 43	65 59	64 17	62 35	60 54	59 14	57 35		30
	40	76 20	74 41	73 01	71 22	69 42	68 03	66 25	64 47	63 10	61 33	59 57	58 22		40
	50	76 10	74 37	73 02	71 27	69 52	68 19	66 45	65 11	63 37	62 05	60 32	59 00		50
3	00	75 58	74 29	72 59	71 28	69 58	68 28	66 58	65 28	63 58	62 29	61 01	59 31	3	00
	10	75 45	74 19	72 52	71 26	69 59	68 33	67 06	65 39	64 13	62 47	61 21	59 56		10
	20	75 28	74 05	72 43	71 20	69 56	68 32	67 10	65 46	64 23	62 59	61 37	60 14		20
	30	75 10	73 50	72 30	71 10	69 50	68 30	67 09	65 49	64 28	63 08	61 47	60 27		30
	40	74 49	73 32	72 15	70 58	69 40	68 22	67 05	65 47	64 30	63 12	61 54	60 35		40
	50	74 28	73 13	71 58	70 43	69 28	68 13	66 58	65 42	64 26	63 11	61 55	60 39		50
4	00	74 03	72 51	71 38	70 26	69 13	68 00	66 47	65 34	64 20	63 06	61 53	60 39	4	00
	10	73 38	72 28	71 17	70 06	68 56	67 45	66 34	65 21	64 10	62 59	61 47	60 35		10
	20	73 11	72 03	70 54	69 45	68 36	67 28	66 18	65 08	63 58	62 48	61 38	60 28		20
	30	72 43	71 36	70 29	69 22	68 15	67 07	65 59	64 51	63 43	62 35	61 27	60 18		30
	40	72 13	71 08	70 02	68 56	67 50	66 45	65 38	64 32	63 25	62 18	61 12	60 04		40
	50	71 42	70 38	69 34	68 30	67 24	66 20	65 15	64 09	63 05	62 00	60 54	59 48		50
5	00	71 09	70 06	69 02	67 59	66 57	65 53	64 49	63 46	62 42	61 37	60 34	59 29	5	00
	10	70 34	69 33	68 31	67 29	66 27	65 24	64 22	63 19	62 16	61 14	60 11	59 07		10
	20	69 58	68 58	67 56	66 56	65 55	64 54	63 52	62 50	61 49	60 47	59 45	58 42		20
	30	69 21	68 21	67 21	66 21	65 21	64 21	63 21	62 20	61 19	60 18	59 17	58 15		30
	40	68 41	67 43	66 44	65 45	64 45	63 46	62 46	61 46	60 46	59 46	58 47	57 46		40
	50	68 01	67 03	66 04	65 05	64 07	63 09	62 10	61 11	60 12	59 12	58 14	57 15		50
6	00	67 18	66 21	65 23	64 24	63 27	62 29	61 31	60 33	59 35	58 36	57 39	56 40	6	00
	10	66 33	65 37	64 39	63 42	62 45	61 48	60 50	59 53	58 56	57 58	57 00	56 02		10
	20	65 46	64 50	63 54	62 58	62 01	61 04	60 08	59 10	58 14	57 17	56 20	55 23		20
	30	64 58	64 02	63 06	62 11	61 14	60 19	59 22	58 26	57 30	56 33	55 38	54 41		30
	40	64 07	63 12	62 17	61 21	60 25	59 30	58 34	57 38	56 43	55 47	54 52	53 56		40
	50	63 14	62 19	61 24	60 28	59 34	58 38	57 43	56 49	55 54	54 58	54 04	53 09		50
7	00	62 19	61 24	60 29	59 35	58 40	57 46	56 51	55 57	55 02	54 07	53 13	52 18	7	00
	10	61 20	60 26	59 32	58 37	57 43	56 49	55 55	55 01	54 07	53 13	52 19	51 26		10
	20	60 19	59 25	58 31	57 38	56 43	55 50	54 56	54 03	53 10	52 16	51 23	50 29		20
	30	59 16	58 23	57 28	56 35	55 41	54 48	53 55	53 01	52 08	51 16	50 24	49 31		30
	40	58 10	57 16	56 23	55 29	54 36	53 43	52 50	51 58	51 06	50 13	49 21	48 29		40
	50	56 59	56 06	55 12	54 20	53 27	52 35	51 43	50 50	49 59	49 07	48 15	47 24		50
8	00	55 45	54 52	53 59	53 07	52 15	51 23	50 30	49 39	48 48	47 56	47 06	46 15	8	00
	10	54 28	53 36	52 43	51 50	50 59	50 08	49 16	48 25	47 34	46 44	45 53	45 04		10
	20	53 08	52 14	51 22	50 31	49 39	48 49	47 57	47 07	46 17	45 27	44 38	43 48		20
	30	51 42	50 50	49 58	49 06	48 16	47 25	46 35	45 45	44 56	44 07	43 18	42 29		30
	40	50 12	49 20	48 29	47 38	46 48	45 58	45 08	44 19	43 31	42 42	41 55	41 06		40
	50	48 37	47 47	46 55	46 05	45 16	44 27	43 38	42 49	42 01	41 14	40 27	39 41		50
9	00	46 57	46 07	45 17	44 27	43 38	42 50	42 02	41 15	40 28	39 41	38 55	38 10	9	00
	10	45 13	44 23	43 33	42 45	41 56	41 09	40 23	39 36	38 50	38 04	37 20	36 35		10
	20	43 22	42 34	41 45	40 57	40 09	39 24	38 38	37 52	37 08	36 24	35 40	34 57		20
	30	41 26	40 38	39 51	39 03	38 18	37 33	36 48	36 04	35 20	34 37	33 56	33 13		30
	40	39 23	38 37	37 50	37 05	36 20	35 37	34 53	34 10	33 29	32 47	32 07	31 27		40
	50	37 14	36 29	35 44	35 00	34 16	33 35	32 54	32 12	31 33	30 52	30 14	29 35		50
10	00	34 58	34 15	33 32	32 50	32 09	31 29	30 48	30 09	29 31	28 53	28 16	27 40	10	00
	10	32 36	31 53	31 13	30 33	29 54	29 16	28 37	28 01	27 24	26 49	26 14	25 39		10
	20	30 07	29 28	28 49	28 11	27 34	26 58	26 23	25 47	25 13	24 41	24 08	23 35		20
	30	27 31	26 55	26 18	25 42	25 08	24 35	24 01	23 29	22 58	22 28	21 57	21 27		30
	40	24 48	24 14	23 41	23 09	22 37	22 06	21 36	21 07	20 37	20 09	19 42	19 15		40
	50	21 59	21 29	20 58	20 29	20 00	19 33	19 06	18 40	18 13	17 48	17 24	16 59		50
11	00	19 04	18 37	18 10	17 44	17 19	16 55	16 30	16 08	15 45	15 22	15 02	14 40	11	00
	10	16 03	15 39	15 17	14 55	14 33	14 13	13 53	13 33	13 13	12 54	12 37	12 19		10
	20	12 57	12 38	12 19	12 01	11 44	11 27	11 10	10 54	10 39	10 24	10 09	9 54		20
	30	9 47	9 32	9 18	9 04	8 51	8 38	8 25	8 13	8 01	7 50	7 38	7 28		30
	40	6 33	6 23	6 13	6 04	5 56	5 47	5 39	5 30	5 22	5 14	5 06	4 59		40
	50	3 17	3 12	3 08	3 03	2 58	2 54	2 50	2 45	2 41	2 38	2 34	2 30		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 20°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 20°.		
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.			
h.	m.	°	′	°	′	°	′	°	′	°	′	°	′	°	′	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	7 17	6 48	6 20	5 57	5 35	5 14	4 57	4 40	4 24	4 11	3 57	3 44	3 30	3 17		10
	20	14 18	13 21	12 29	11 43	11 01	10 23	9 47	9 15	8 45	8 16	7 51	7 27	7 03	6 39		20
	30	20 47	19 28	18 16	17 12	16 12	15 17	14 26	13 39	12 56	12 16	11 38	11 03	10 30	9 56		30
	40	26 39	25 04	23 36	22 16	21 01	19 54	18 50	17 51	16 55	16 05	15 16	14 30	13 46	13 02		40
	50	31 49	30 03	28 24	26 53	25 27	24 09	22 55	21 45	20 40	19 40	18 43	17 49	16 55	16 02		50
1	00	36 18	34 25	32 39	31 00	29 28	28 01	26 39	25 22	24 09	23 00	21 56	20 55	19 55	18 56	1	00
	10	40 09	38 13	36 24	34 40	33 02	31 30	30 03	28 39	27 21	26 06	24 56	23 48	22 44	21 41		10
	20	43 25	41 29	39 38	37 53	36 12	34 37	33 06	31 39	30 16	28 57	27 41	26 29	25 20	24 13		20
	30	46 13	44 18	42 28	40 42	39 00	37 23	35 49	34 20	32 54	31 32	30 13	28 57	27 44	26 33		30
	40	48 35	46 43	44 54	43 09	41 27	39 49	38 15	36 44	35 16	33 53	32 31	31 13	30 00	28 89		40
	50	50 35	48 46	46 59	45 15	43 35	41 58	40 23	38 52	37 23	35 58	34 35	33 15	31 55	30 35		50
2	00	52 18	50 31	48 47	47 06	45 26	43 50	42 17	40 46	39 17	37 51	36 27	35 06	33 46	32 26	2	00
	10	53 44	52 01	50 19	48 40	47 03	45 29	43 56	42 26	40 58	39 31	38 08	36 45	35 23	34 01		10
	20	54 56	53 16	51 38	50 01	48 26	46 54	45 23	43 53	42 26	41 00	39 37	38 15	36 53	35 30		20
	30	55 57	54 21	52 45	51 12	49 39	48 09	46 39	45 11	43 45	42 20	40 56	39 35	38 13	36 51		30
	40	56 48	55 14	53 42	52 11	50 41	49 12	47 44	46 18	44 53	43 29	42 07	40 46	39 24	38 02		40
	50	57 29	55 59	54 30	53 01	51 33	50 07	48 41	47 16	45 52	44 30	43 08	41 48	40 26	39 04		50
3	00	58 04	56 36	55 09	53 43	52 17	50 53	49 29	48 06	46 44	45 23	44 02	42 42	41 21	40 00	3	00
	10	58 30	57 06	55 42	54 18	52 54	51 32	50 10	48 49	47 28	46 08	44 49	43 30	42 10	40 90		10
	20	58 51	57 29	56 07	54 46	53 25	52 04	50 44	49 24	48 05	46 47	45 29	44 11	42 53	41 34		20
	30	59 07	57 47	56 27	55 08	53 49	52 30	51 13	49 54	48 36	47 20	46 03	44 47	43 30	42 13		30
	40	59 18	58 00	56 42	55 25	54 08	52 51	51 34	50 18	49 02	47 47	46 31	45 16	44 00	42 84		40
	50	59 23	58 07	56 53	55 37	54 21	53 06	51 51	50 37	49 22	48 08	46 54	45 40	44 26	43 11		50
4	00	59 26	58 11	56 58	55 44	54 31	53 17	52 04	50 50	49 37	48 25	47 12	45 59	44 46	43 33	4	00
	10	59 23	58 12	57 00	55 48	54 36	53 23	52 11	51 00	49 48	48 37	47 25	46 13	45 00	43 88		10
	20	59 18	58 08	56 57	55 46	54 37	53 26	52 15	51 05	49 54	48 45	47 34	46 24	45 13	44 02		20
	30	59 08	58 00	56 51	55 42	54 34	53 24	52 16	51 06	49 57	48 48	47 39	46 30	45 20	44 10		30
	40	58 57	57 50	56 42	55 35	54 27	53 19	52 12	51 04	49 56	48 48	47 40	46 31	45 22	44 13		40
	50	58 42	57 36	56 29	55 24	54 17	53 11	52 05	50 58	49 51	48 45	47 37	46 30	45 22	44 14		50
5	00	58 24	57 19	56 14	55 09	54 04	52 59	51 53	50 48	49 43	48 37	47 31	46 25	45 19	44 13	5	00
	10	58 03	57 00	55 56	54 52	53 48	52 44	51 40	50 35	49 31	48 26	47 21	46 16	45 10	44 05		10
	20	57 41	56 38	55 35	54 32	53 30	52 26	51 23	50 20	49 16	48 13	47 09	46 05	45 00	43 95		20
	30	57 15	56 13	55 10	54 09	53 07	52 05	51 03	50 00	48 58	47 55	46 53	45 50	44 46	43 43		30
	40	56 45	55 45	54 44	53 44	52 42	51 41	50 40	49 38	48 37	47 35	46 34	45 32	44 31	43 29		40
	50	56 15	55 15	54 15	53 15	52 15	51 14	50 15	49 15	48 15	47 13	46 12	45 11	44 10	43 09		50
6	00	55 40	54 42	53 43	52 44	51 45	50 45	49 46	48 46	47 46	46 47	45 47	44 47	43 47	42 47	6	00
	10	55 04	54 06	53 08	52 10	51 12	50 13	49 14	48 16	47 17	46 18	45 19	44 20	43 20	42 21		10
	20	54 26	53 28	52 30	51 33	50 36	49 39	48 40	47 42	46 45	45 47	44 48	43 50	42 51	41 52		20
	30	53 44	52 48	51 51	50 54	49 58	49 01	48 04	47 07	46 10	45 13	44 15	43 17	42 19	41 21		30
	40	53 00	52 04	51 08	50 13	49 16	48 20	47 24	46 28	45 31	44 35	43 39	42 42	41 45	40 48		40
	50	52 13	51 18	50 23	49 28	48 32	47 37	46 42	45 46	44 51	43 56	43 00	42 04	41 08	40 12		50
7	00	51 24	50 29	49 34	48 40	47 46	46 51	45 56	45 02	44 08	43 13	42 18	41 23	40 28	39 33	7	00
	10	50 31	49 37	48 44	47 50	46 56	46 02	45 09	44 15	43 21	42 28	41 33	40 39	39 44	38 49		10
	20	49 36	48 43	47 50	46 57	46 03	45 11	44 17	43 23	42 32	41 39	40 46	39 53	39 00	38 06		20
	30	48 38	47 45	46 53	46 00	45 08	44 16	43 24	42 32	41 40	40 48	39 55	39 03	38 10	37 17		30
	40	47 37	46 45	45 53	45 02	44 10	43 19	42 28	41 36	40 44	39 54	39 02	38 11	37 19	36 27		40
	50	46 32	45 42	44 50	43 59	43 09	42 18	41 27	40 37	39 47	38 57	38 06	37 16	36 25	35 34		50
8	00	45 25	44 34	43 43	42 54	42 04	41 14	40 25	39 35	38 46	37 56	37 07	36 18	35 28	34 38	8	00
	10	44 14	43 24	42 35	41 46	40 56	40 08	39 19	38 30	37 42	36 54	36 06	35 17	34 27	33 37		10
	20	43 00	42 11	41 22	40 34	39 45	38 58	38 10	37 23	36 36	35 48	35 01	34 13	33 24	32 35		20
	30	41 41	40 53	40 05	39 18	38 31	37 45	36 58	36 11	35 25	34 39	33 53	33 07	32 20	31 33		30
	40	40 20	39 33	38 46	38 00	37 13	36 28	35 42	34 57	34 12	33 28	32 42	31 58	31 12	30 26		40
	50	38 54	38 08	37 23	36 38	35 52	35 08	34 23	33 39	32 55	32 12	31 29	30 46	29 62	28 78		50
9	00	37 25	36 40	35 55	35 12	34 27	33 45	33 01	32 18	31 36	30 54	30 12	29 30	28 48	28 05	9	00
	10	35 52	35 07	34 24	33 42	32 59	32 18	31 35	30 54	30 13	29 33	28 52	28 12	27 31	26 50		10
	20	34 14	33 32	32 50	32 09	31 27	30 47	30 07	29 26	28 46	28 06	27 26	26 45	26 05	25 24		20
	30	32 32	31 52	31 12	30 32	29 52	29 14	28 35	27 57	27 19	26 41	26 04	25 27	24 49	24 11		30
	40	30 47	30 08	29 29	28 51	28 13	27 36	26 59	26 23	25 47	25 11	24 35	24 00	23 24	22 48		40
	50	28 57	28 20	27 43	27 07	26 31	25 55	25 20	24 46	24 12	23 38	23 05	22 31	21 57	21 23		50
10	00	27 04	26 28	25 53	25 19	24 45	24 11	23 38	23 06	22 34	22 02	21 30	20 59	20 28	19 57	10	00
	10	25 05	24 32	24 00	23 28	22 55	22 24	21 53	21 23	20 52	20 22	19 53	19 24	18 54	18 24		10
	20	23 04	22 33	22 02	21 33	21 02	20 34										

AZIMUTH OR TRUE BEARING.

LATITUDE 20°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 20°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	3 34	3 23	3 12	3 03	2 54	2 45	2 38	2 30	2 22	2 16	2 09	2 02	0	10
0	20	7 05	6 43	6 23	6 05	5 46	5 30	5 13	4 58	4 44	4 31	4 17	4 05	0	20
0	30	10 29	9 58	9 29	9 01	8 35	8 11	7 47	7 25	7 03	6 43	6 24	6 05	0	30
0	40	13 48	13 08	12 31	11 54	11 20	10 49	10 18	9 48	9 21	8 54	8 28	8 03	0	40
0	50	16 57	16 09	15 24	14 40	13 59	13 20	12 42	12 07	11 33	11 00	10 29	9 58	0	50
1	00	19 57	19 02	18 09	17 19	16 32	15 46	15 03	14 21	13 41	13 03	12 27	11 51	1	00
1	10	22 45	21 43	20 45	19 49	18 57	18 06	17 16	16 29	15 45	15 01	14 20	13 39	1	10
1	20	25 20	24 15	23 11	22 11	21 13	20 16	19 23	18 32	17 41	16 54	16 08	15 23	1	20
1	30	27 45	26 35	25 28	24 23	23 21	22 21	21 23	20 28	19 34	18 42	17 51	17 03	1	30
1	40	29 57	28 44	27 34	26 25	25 20	24 17	23 15	22 17	21 19	20 23	19 30	18 37	1	40
1	50	31 57	30 42	29 29	28 19	27 10	26 04	25 00	23 58	22 58	21 59	21 02	20 07	1	50
2	00	33 47	32 30	31 15	30 04	28 54	27 45	26 38	25 34	24 31	23 30	22 30	21 32	2	00
2	10	35 26	34 08	32 53	31 38	30 27	29 17	28 08	27 02	25 56	24 52	23 51	22 50	2	10
2	20	36 55	35 37	34 20	33 06	31 52	30 41	29 31	28 22	27 16	26 11	25 07	24 04	2	20
2	30	38 15	36 56	35 39	34 24	33 10	31 58	30 46	29 37	28 29	27 22	26 17	25 13	2	30
2	40	39 26	38 08	36 51	35 35	34 21	33 07	31 56	30 46	29 37	28 29	27 22	26 17	2	40
2	50	40 29	39 11	37 54	36 39	35 24	34 11	32 59	31 48	30 38	29 29	28 21	27 15	2	50
3	00	41 24	40 07	38 51	37 35	36 21	35 07	33 55	32 45	31 34	30 24	29 16	28 08	3	00
3	10	42 13	40 57	39 41	38 26	37 11	35 58	34 46	33 35	32 23	31 13	30 05	28 57	3	10
3	20	42 55	41 39	40 24	39 10	37 56	36 43	35 31	34 19	33 08	31 58	30 49	29 41	3	20
3	30	43 31	42 16	41 02	39 48	38 35	37 22	36 10	35 00	33 48	32 38	31 29	30 21	3	30
3	40	44 02	42 48	41 35	40 21	39 08	37 56	36 45	35 34	34 23	33 13	32 04	30 55	3	40
3	50	44 27	43 14	42 01	40 49	39 37	38 25	37 14	36 04	34 54	33 44	32 34	31 26	3	50
4	00	44 47	43 35	42 24	41 12	40 00	38 50	37 39	36 29	35 20	34 10	33 01	31 52	4	00
4	10	45 02	43 50	42 41	41 30	40 20	39 10	38 00	36 51	35 41	34 32	33 23	32 15	4	10
4	20	45 13	44 03	42 54	41 44	40 35	39 26	38 16	37 07	35 58	34 50	33 41	32 33	4	20
4	30	45 21	44 12	43 03	41 54	40 45	39 37	38 28	37 20	36 12	35 04	33 56	32 49	4	30
4	40	45 24	44 16	43 08	42 00	40 52	39 45	38 37	37 30	36 22	35 14	34 08	33 00	4	40
4	50	45 24	44 17	43 09	42 03	40 56	39 48	38 42	37 35	36 28	35 21	34 15	33 08	4	50
5	00	45 19	44 13	43 07	42 02	40 56	39 49	38 43	37 37	36 31	35 25	34 19	33 12	5	00
5	10	45 12	44 07	43 02	41 56	40 51	39 47	38 41	37 37	36 31	35 25	34 19	33 14	5	10
5	20	45 00	43 57	42 53	41 48	40 44	39 40	38 36	37 32	36 27	35 22	34 17	33 13	5	20
5	30	44 47	43 44	42 40	41 37	40 34	39 31	38 27	37 24	36 19	35 16	34 12	33 08	5	30
5	40	44 29	43 28	42 25	41 23	40 21	39 18	38 15	37 13	36 09	35 07	34 03	33 00	5	40
5	50	44 10	43 08	42 07	41 05	40 04	39 03	38 00	36 59	35 56	34 54	33 52	32 49	5	50
6	00	43 47	42 46	41 46	40 45	39 44	38 43	37 43	36 42	35 40	34 39	33 37	32 35	6	00
6	10	43 21	42 21	41 21	40 21	39 22	38 22	37 21	36 22	35 21	34 21	33 20	32 19	6	10
6	20	42 52	41 54	40 54	39 55	38 57	37 58	36 58	36 00	35 00	34 01	33 01	32 01	6	20
6	30	42 20	41 23	40 25	39 27	38 29	37 30	36 32	35 34	34 35	33 36	32 38	31 38	6	30
6	40	41 46	40 49	39 52	38 55	37 58	37 00	36 03	35 06	34 08	33 11	32 13	31 15	6	40
6	50	41 09	40 13	39 16	38 20	37 25	36 28	35 32	34 35	33 39	32 42	31 45	30 48	6	50
7	00	40 28	39 34	38 38	37 43	36 48	35 53	34 57	34 02	33 06	32 11	31 15	30 18	7	00
7	10	39 45	38 52	37 57	37 03	36 09	35 15	34 20	33 26	32 31	31 37	30 42	29 46	7	10
7	20	38 59	38 06	37 14	36 20	35 27	34 33	33 40	32 47	31 54	31 00	30 06	29 12	7	20
7	30	38 11	37 19	36 27	35 35	34 43	33 50	32 58	32 06	31 14	30 22	29 29	28 36	7	30
7	40	37 20	36 29	35 38	34 46	33 55	33 05	32 13	31 23	30 31	29 40	28 48	27 56	7	40
7	50	36 26	35 36	34 46	33 56	33 06	32 16	31 25	30 36	29 46	28 56	28 06	27 15	7	50
8	00	35 29	34 40	33 51	33 02	32 13	31 24	30 36	29 48	28 59	28 09	27 20	26 32	8	00
8	10	34 29	33 42	32 54	32 06	31 19	30 31	29 44	28 56	28 08	27 21	26 33	25 46	8	10
8	20	33 27	32 41	31 54	31 07	30 22	29 35	28 49	28 02	27 16	26 30	25 44	24 57	8	20
8	30	32 22	31 37	30 51	30 06	29 21	28 36	27 51	27 07	26 21	25 36	24 52	24 07	8	30
8	40	31 14	30 29	29 45	29 02	28 18	27 35	26 51	26 08	25 24	24 41	23 58	23 15	8	40
8	50	30 03	29 20	28 37	27 55	27 12	26 31	25 49	25 07	24 25	23 44	23 01	22 19	8	50
9	00	28 48	28 08	27 27	26 45	26 05	25 24	24 44	24 04	23 23	22 43	22 03	21 22	9	00
9	10	27 32	26 53	26 13	25 34	24 54	24 16	23 37	22 58	22 20	21 41	21 03	20 24	9	10
9	20	26 12	25 34	24 56	24 19	23 42	23 04	22 28	21 51	21 14	20 37	20 00	19 23	9	20
9	30	24 51	24 14	23 38	23 02	22 26	21 51	21 15	20 41	20 05	19 31	18 55	18 21	9	30
9	40	23 26	22 51	22 17	21 42	21 08	20 35	20 02	19 28	18 55	18 23	17 50	17 17	9	40
9	50	21 58	21 25	20 53	20 21	19 49	19 17	18 46	18 15	17 44	17 13	16 41	16 11	9	50
10	00	20 28	19 58	19 27	18 56	18 27	17 58	17 28	16 58	16 29	16 01	15 32	15 02	10	00
10	10	18 55	18 27	17 59	17 30	16 57	16 35	16 08	15 40	15 13	14 47	14 20	13 53	10	10
10	20	17 20	16 54	16 28	16 02	15 37	15 11	14 46	14 21	13 56	13 32	13 07	12 42	10	20
10	30	15 44	15 19	14 55	14 32	14 08	13 46	13 22	13 00	12 37	12 15	11 52	11 30	10	30
10	40	14 04	13 42	13 21	12 59	12 39	12 18	11 57	11 37	11 17	10 57	10 37	10 17	10	40
10	50	12 23	12 03	11 45	11 26	11 08	10 49	10 31	10 14	9 56	9 38	9 20	9 02	10	50
11	00	10 40	10 24	10 07	9 51	9 35	9 19	9 03	8 48	8 33	8 18	8 02	7 46	11	00
11	10	8 56	8 42	8 28	8 15	8 01	7 48	7 34	7 21	7 08	6 55	6 43	6 30	11	10
11	20	7 10	6 59	6 48	6 37	6 27	6 16	6 05	5 54	5 44	5 34	5 23	5 13	11	20
11	30	5 23	5 16	5 07	4 58	4 50	4 42	4 34	4 27	4 19	4 11	4 03	3 56	11	30
11	40	3 36	3 30	3 25	3 20	3 14	3 09	3 03	2 58	2 53	2 47	2 42	2 37	11	40
11	50	1 48	1 45	1 42	1 39	1 37	1 34	1 32	1 29	1 27	1 24	1 22	1 19	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 20°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 20°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.				
h.	m.	0	1	2	3	4	5	6	7	8	9	10	h.	m.			
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00			
	10	1 57	1 51	1 45	1 40	1 35	1 29	1 24	1 20	1 16	1 11	1 06	1	10			
	20	3 52	3 41	3 30	3 19	3 09	2 58	2 49	2 40	2 31	2 22	2 14	2	20			
	30	5 47	5 30	5 14	4 58	4 42	4 27	4 13	3 59	3 46	3 33	3 20	3	30			
	40	7 39	7 17	6 55	6 34	6 14	5 54	5 35	5 18	5 00	4 42	4 26	4	40			
	50	9 30	9 02	8 35	8 09	7 44	7 20	6 57	6 34	6 12	5 51	5 30	5	50			
1	00	11 17	10 44	10 13	9 42	9 12	8 44	8 16	7 49	7 24	6 58	6 33	1	00			
	10	13 00	12 24	11 48	11 13	10 39	10 06	9 34	9 04	8 33	8 04	7 36	1	10			
	20	14 40	13 59	13 18	12 40	12 02	11 25	10 49	10 15	9 41	9 08	8 36	1	20			
	30	16 16	15 31	14 47	14 03	13 22	12 41	12 02	11 24	10 47	10 10	9 36	1	30			
	40	17 47	16 58	16 11	15 25	14 40	13 55	13 12	12 31	11 51	11 10	10 32	1	40			
	50	19 13	18 21	17 31	16 41	15 53	15 05	14 19	13 36	12 52	12 09	11 28	1	50			
2	00	20 35	19 41	18 47	17 54	17 03	16 13	15 24	14 37	13 51	13 05	12 20	2	00			
	10	21 51	20 55	19 59	19 03	18 09	17 17	16 26	15 36	14 46	13 58	13 11	2	10			
	20	23 04	22 04	21 06	20 08	19 12	18 18	17 24	16 31	15 40	14 49	14 00	2	20			
	30	24 11	23 09	22 09	21 10	20 11	19 14	18 19	17 24	16 30	15 38	14 46	2	30			
	40	25 12	24 09	23 08	22 07	21 07	20 08	19 10	18 14	17 19	16 23	15 30	2	40			
	50	26 09	25 05	24 02	22 59	21 59	20 58	19 59	19 01	18 03	17 06	16 10	2	50			
3	00	27 02	25 57	24 52	23 49	22 47	21 45	20 43	19 44	18 45	17 46	16 49	3	00			
	10	27 50	26 44	25 39	24 34	23 30	22 27	21 24	20 24	19 24	18 23	17 25	3	10			
	20	28 33	27 26	26 21	25 15	24 10	23 06	22 03	21 01	19 59	18 58	17 58	3	20			
	30	29 12	28 04	26 58	25 52	24 47	23 42	22 38	21 35	20 32	19 30	18 29	3	30			
	40	29 47	28 39	27 33	26 25	25 20	24 14	23 09	22 06	21 03	20 00	18 58	3	40			
	50	30 18	29 10	28 03	26 55	25 49	24 43	23 39	22 34	21 30	20 25	19 23	3	50			
4	00	30 44	29 36	28 29	27 22	26 15	25 10	24 03	22 58	21 54	20 49	19 46	4	00			
	10	31 06	29 59	28 52	27 45	26 38	25 32	24 25	23 21	22 16	21 11	20 07	4	10			
	20	31 26	30 18	29 11	28 04	26 58	25 51	24 45	23 40	22 34	21 28	20 24	4	20			
	30	31 41	30 34	29 27	28 20	27 13	26 07	25 01	23 56	22 50	21 44	20 40	4	30			
	40	31 53	30 46	29 40	28 33	27 27	26 20	25 14	24 09	23 03	21 57	20 52	4	40			
	50	32 02	30 55	29 49	28 43	27 36	26 30	25 24	24 19	23 13	22 08	21 03	4	50			
5	00	32 06	31 01	29 55	28 50	27 44	26 38	25 32	24 27	23 21	22 16	21 10	5	00			
	10	32 09	31 04	29 59	28 53	27 47	26 42	25 37	24 32	23 26	22 21	21 17	5	10			
	20	32 08	31 03	29 59	28 53	27 48	26 44	25 39	24 34	23 29	22 24	21 20	5	20			
	30	32 03	31 00	29 56	28 51	27 47	26 43	25 38	24 34	23 30	22 25	21 21	5	30			
	40	31 57	30 53	29 50	28 46	27 42	26 38	25 36	24 32	23 28	22 23	21 20	5	40			
	50	31 47	30 44	29 42	28 38	27 36	26 32	25 29	24 26	23 23	22 19	21 16	5	50			
6	00	31 34	30 32	29 31	28 28	27 26	26 23	25 21	24 19	23 16	22 12	21 10	6	00			
	10	31 19	30 18	29 17	28 15	27 14	26 12	25 10	24 09	23 07	22 04	21 03	6	10			
	20	31 01	30 01	29 00	28 00	26 59	25 59	24 58	23 57	22 56	21 54	20 53	6	20			
	30	30 40	29 40	28 42	27 41	26 42	25 42	24 42	23 42	22 42	21 41	20 42	6	30			
	40	30 17	29 18	28 21	27 22	26 22	25 24	24 24	23 25	22 26	21 27	20 27	6	40			
	50	29 51	28 54	27 56	26 59	26 01	25 03	24 04	23 07	22 09	21 10	20 12	6	50			
7	00	29 22	28 26	27 30	26 33	25 37	24 40	23 42	22 46	21 48	20 50	19 53	7	00			
	10	28 51	27 56	27 01	26 06	25 10	24 14	23 18	22 23	21 26	20 30	19 33	7	10			
	20	28 19	27 25	26 31	25 36	24 42	23 47	22 52	21 58	21 02	20 07	19 12	7	20			
	30	27 43	26 51	25 58	25 04	24 11	23 17	22 24	21 31	20 36	19 42	18 49	7	30			
	40	27 05	26 14	25 22	24 30	23 38	22 46	21 53	21 01	20 09	19 15	18 23	7	40			
	50	26 25	25 35	24 45	23 54	23 03	22 12	21 21	20 30	19 39	18 48	17 57	7	50			
8	00	25 43	24 54	24 05	23 16	22 26	21 36	20 46	19 58	19 08	18 18	17 28	8	00			
	10	24 58	24 10	23 23	22 35	21 47	20 59	20 11	19 23	18 34	17 45	16 58	8	10			
	20	24 11	23 25	22 39	21 53	21 06	20 20	19 33	18 47	18 00	17 13	16 26	8	20			
	30	23 22	22 38	21 53	21 08	20 23	19 38	18 53	18 08	17 23	16 38	15 53	8	30			
	40	22 31	21 49	21 05	20 22	19 38	18 55	18 11	17 28	16 45	16 01	15 18	8	40			
	50	21 38	20 57	20 16	19 34	18 53	18 10	17 28	16 47	16 05	15 23	14 41	8	50			
9	00	20 43	20 03	19 23	18 44	18 03	17 24	16 43	16 03	15 23	14 44	14 04	9	00			
	10	19 46	19 08	18 30	17 52	17 14	16 35	15 58	15 19	14 47	14 03	13 25	9	10			
	20	18 47	18 11	17 35	16 58	16 22	15 46	15 10	14 33	13 57	13 20	12 45	9	20			
	30	17 47	17 12	16 38	16 03	15 29	14 54	14 20	13 46	13 11	12 37	12 03	9	30			
	40	16 44	16 11	15 39	15 07	14 34	14 01	13 29	12 57	12 25	11 52	11 20	9	40			
	50	15 40	15 09	14 39	14 08	13 38	13 08	12 37	12 07	11 37	11 06	10 36	9	50			
10	00	14 35	14 06	13 38	13 09	12 40	12 12	11 44	11 16	10 48	10 20	9 51	10	00			
	10	13 27	13 00	12 34	12 08	11 42	11 16	10 49	10 23	9 57	9 31	9 06	10	10			
	20	12 18	11 54	11 30	11 06	10 42	10 18	9 55	9 30	9 06	8 42	8 19	10	20			
	30	11 08	10 47	10 25	10 02	9 41	9 19	8 58	8 37	8 15	7 53	7 31	10	30			
	40	9 57	9 37	9 18	8 58	8 39	8 19	8 00	7 41	7 21	7 02	6 43	10	40			
	50	8 45	8 28	8 10	7 54	7 36	7 19	7 02	6 45	6 29	6 11	5 55	10	50			
11	00	7 32	7 17	7 02	6 47	6 32	6 17	6 03	5 49	5 34	5 19	5 05	11	00			
	10	6 18	6 06	5 53	5 41	5 28	5 16	5 03	4 51	4 39	4 26	4 15	11	10			
	20	5 03	4 53	4 43	4 33	4 24	4 13	4 03	3 54	3 44	3 34	3 24	11	20			
	30	3 47	3 40	3 33	3 25	3 18	3 10	3 03	2 55	2 49	2 41	2 32	11	30			
	40	2 33	2 27	2 22	2 17	2 12	2 07	2 02	1 58	1 52	1 48	1 42	11	40			
	50	1 17	1 13	1 11	1 08	1 06	1 04	1 01	0 59	0 57	0 54	0 51	11	50			
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00			

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 21°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 21°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	37 07	29 26	24 09	20 20	17 30	15 18	13 34	12 08	10 57	9 58	9 08	8 24	0	10
0	20	56 04	48 03	41 33	36 18	32 01	28 30	25 35	23 09	21 04	19 16	17 43	16 22	0	20
0	30	65 11	58 29	52 32	47 18	42 46	38 50	35 24	32 24	29 47	27 29	25 26	23 37	0	30
0	40	70 08	64 37	59 28	54 45	50 26	46 33	43 02	39 52	37 00	34 26	32 06	30 00	0	40
0	50	73 06	68 27	64 01	59 50	55 54	52 15	48 52	45 43	42 49	40 10	37 43	35 28	0	50
1	00	74 58	70 59	67 08	63 25	59 52	56 29	53 19	50 19	47 29	44 52	42 23	40 05	1	00
1	10	76 12	72 43	69 19	66 00	62 47	59 42	56 45	53 56	51 13	48 40	46 15	43 57	1	10
1	20	77 00	73 55	70 52	67 54	64 59	62 09	59 25	56 46	54 12	51 46	49 25	47 11	1	20
1	30	77 33	74 46	72 01	69 18	66 39	64 02	61 29	59 01	56 36	54 17	52 03	49 53	1	30
1	40	77 52	75 21	72 51	70 21	67 54	65 29	63 08	60 49	58 32	56 20	54 11	52 07	1	40
1	50	78 03	75 44	73 25	71 08	68 52	66 37	64 25	62 14	60 06	58 01	55 58	53 58	1	50
2	00	78 07	75 58	73 50	71 42	69 36	67 30	65 26	63 23	61 22	59 24	57 27	55 32	2	00
2	10	78 05	76 05	74 06	72 07	70 08	68 11	66 14	64 17	62 22	60 30	58 38	56 48	2	10
2	20	77 59	76 07	74 15	72 07	70 31	68 41	66 50	65 00	63 11	61 25	59 38	57 52	2	20
2	30	77 50	76 04	74 18	72 33	70 47	69 03	67 18	65 34	63 51	62 07	60 26	58 45	2	30
2	40	77 37	75 57	74 17	72 37	70 57	69 18	67 38	65 59	64 20	62 42	61 05	59 28	2	40
2	50	77 22	75 47	74 13	72 37	71 02	69 27	67 52	66 17	64 43	63 09	61 35	60 02	2	50
3	00	77 05	75 34	74 04	72 33	71 02	69 31	68 01	66 29	64 59	63 29	61 58	60 29	3	00
3	10	76 45	75 19	73 52	72 25	70 58	69 31	68 04	66 36	65 10	63 43	62 16	60 50	3	10
3	20	76 24	75 02	73 38	72 15	70 51	69 27	68 04	66 39	65 16	63 52	62 28	61 05	3	20
3	30	76 02	74 41	73 21	72 01	70 40	69 20	67 59	66 38	65 17	63 56	62 34	61 14	3	30
3	40	75 37	74 20	73 03	71 45	70 27	69 09	67 51	66 33	65 14	63 56	62 37	61 19	3	40
3	50	75 11	73 56	72 42	71 26	70 12	68 56	67 40	66 25	65 08	63 52	62 36	61 20	3	50
4	00	74 43	73 32	72 19	71 06	69 53	68 39	67 26	66 13	64 59	63 45	62 31	61 17	4	00
4	10	74 15	73 05	71 54	70 43	69 32	68 21	67 10	65 58	64 47	63 35	62 22	61 10	4	10
4	20	73 45	72 37	71 28	70 19	69 10	68 01	66 51	65 41	64 31	63 21	62 10	61 00	4	20
4	30	73 13	72 06	71 00	69 53	68 45	67 38	66 29	65 22	64 14	63 05	61 56	60 48	4	30
4	40	72 41	71 35	70 30	69 24	68 19	67 13	66 06	65 00	63 53	62 46	61 39	60 32	4	40
4	50	72 07	71 02	69 58	68 54	67 50	66 45	65 40	64 35	63 30	62 25	61 18	60 13	4	50
5	00	71 31	70 28	69 25	68 23	67 19	66 15	65 12	64 08	63 04	62 00	60 55	59 51	5	00
5	10	70 54	69 53	68 51	67 49	66 47	65 44	64 42	63 40	62 37	61 34	60 31	59 27	5	10
5	20	70 46	69 15	68 14	67 14	66 13	65 12	64 10	63 08	62 07	61 06	60 03	59 00	5	20
5	30	69 36	68 36	67 36	66 37	65 37	64 36	63 35	62 35	61 34	60 34	59 33	58 31	5	30
5	40	68 54	67 55	66 57	65 57	64 59	63 59	63 00	62 00	61 00	60 00	59 00	58 00	5	40
5	50	68 11	67 13	66 14	65 16	64 18	63 20	62 22	61 23	60 24	59 25	58 25	57 27	5	50
6	00	67 26	66 29	65 31	64 33	63 36	62 38	61 41	60 43	59 44	58 47	57 48	56 49	6	00
6	10	66 39	65 42	64 46	63 49	62 52	61 55	60 58	60 01	59 03	58 06	57 08	56 10	6	10
6	20	65 51	64 55	63 58	63 02	62 06	61 09	60 13	59 16	58 20	57 23	56 27	55 29	6	20
6	30	65 00	64 04	63 09	62 12	61 17	60 21	59 25	58 29	57 34	56 38	55 42	54 46	6	30
6	40	64 07	63 12	62 17	61 22	60 27	59 31	58 36	57 41	56 45	55 50	54 54	54 00	6	40
6	50	63 12	62 17	61 23	60 28	59 33	58 38	57 44	56 49	55 54	54 59	54 05	53 10	6	50
7	00	62 14	61 20	60 26	59 32	58 37	57 43	56 49	55 55	55 01	54 06	53 12	52 18	7	00
7	10	61 15	60 20	59 26	58 33	57 39	56 45	55 51	54 58	54 05	53 11	52 17	51 24	7	10
7	20	60 42	59 48	58 55	58 01	57 08	56 14	55 21	54 28	53 35	52 42	51 49	50 57	7	20
7	30	59 07	58 13	57 20	56 26	55 34	54 40	53 48	52 55	52 03	51 11	50 19	49 27	7	30
7	40	57 58	57 05	56 12	55 20	54 27	53 35	52 42	51 50	50 58	50 07	49 14	48 23	7	40
7	50	56 47	55 53	55 01	54 09	53 16	52 25	51 33	50 41	49 50	48 59	48 07	47 17	7	50
8	00	55 31	54 38	53 47	52 54	52 03	51 11	50 20	49 29	48 38	47 48	46 57	46 07	8	00
8	10	54 13	53 19	52 28	51 37	50 46	49 55	49 04	48 13	47 23	46 33	45 44	44 54	8	10
8	20	52 50	51 57	51 06	50 15	49 25	48 34	47 45	46 55	46 05	45 15	44 27	43 38	8	20
8	30	51 23	50 31	49 40	48 50	47 59	47 10	46 21	45 31	44 43	43 54	43 06	42 18	8	30
8	40	49 52	49 00	48 10	47 20	46 31	45 42	44 53	44 05	43 16	42 29	41 42	40 55	8	40
8	50	48 16	47 26	46 36	45 46	44 57	44 08	43 20	42 33	41 46	41 00	40 13	39 27	8	50
9	00	46 36	45 45	44 56	44 07	43 19	42 31	41 44	40 58	40 11	39 26	38 41	37 57	9	00
9	10	44 49	43 59	43 11	42 23	41 36	40 50	40 04	39 18	38 34	37 49	37 05	36 22	9	10
9	20	42 58	42 10	41 22	40 35	39 49	39 04	38 19	37 35	36 51	36 07	35 24	34 42	9	20
9	30	41 01	40 14	39 27	38 42	37 57	37 12	36 29	35 46	35 03	34 21	33 40	32 59	9	30
9	40	38 58	38 12	37 26	36 43	35 59	35 16	34 34	33 52	33 11	32 31	31 51	31 11	9	40
9	50	36 49	36 04	35 20	34 38	33 56	33 15	32 34	31 54	31 15	30 37	29 58	29 21	9	50
10	00	34 32	33 50	33 09	32 28	31 47	31 08	30 29	29 51	29 13	28 37	28 00	27 25	10	00
10	10	32 11	31 30	30 51	30 12	29 34	28 56	28 19	27 43	27 08	26 33	25 58	25 25	10	10
10	20	29 43	29 04	28 27	27 50	27 14	26 39	26 05	25 30	24 57	24 26	23 53	23 22	10	20
10	30	27 09	26 32	25 57	25 23	24 49	24 16	23 45	23 14	22 43	22 13	21 43	21 15	10	30
10	40	24 27	23 53	23 21	22 50	22 19	21 49	21 20	20 51	20 23	19 56	19 30	19 03	10	40
10	50	21 39	21 09	20 40	20 12	19 44	19 17	18 51	18 26	18 00	17 36	17 12	16 49	10	50
11	00	18 46	18 19	17 53	17 29	17 05	16 41	16 18	15 55	15 34	15 12	14 51	14 31	11	00
11	10	15 47	15 25	15 03	14 41	14 21	14 01	13 41	13 22	13 04	12 46	12 28	12 10	11	10
11	20	12 44	12 26	12 08	11 50	11 34	11 17	11 01	10 46	10 31	10 16	10 02	9 47	11	20
11	30	9 37	9 22	9 09	8 55	8 43	8 30	8 18	8 06	7 55	7 44	7 33	7 22	11	30
11	40	6 26	6 16	6 08	5 58	5 50	5 41	5 33	5 25	5 18	5 10	5 03	4 55	11	40
11	50	3 14	3 09	3 04	3 00	2 55	2 51	2 47	2 43	2 39	2 35	2 31	2 28	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 21°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 21°.		
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.			
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	7 45	7 11	6 42	6 15	5 51	5 30	5 10	4 51	4 35	4 20	4 06	3 53		10		
	20	15 11	14 07	13 10	12 19	11 33	10 52	10 13	9 38	9 06	8 36	8 08	7 42		20		
	30	22 01	20 33	19 14	18 02	16 57	15 58	15 03	14 12	13 27	12 44	12 03	11 26		30		
	40	28 05	26 21	24 45	23 19	21 58	20 45	19 36	18 33	17 33	16 39	15 48	14 59		40		
	50	33 23	31 28	29 42	28 04	26 32	25 07	23 48	22 34	21 25	20 21	19 20	18 23		50		
1	00	37 55	35 55	34 02	32 16	30 37	29 05	27 38	26 16	24 59	23 46	22 39	21 34	1	00		
	10	41 47	39 44	37 48	35 59	34 15	32 38	31 05	29 37	28 15	26 56	25 42	24 31		10		
	20	45 02	43 00	41 03	39 12	37 27	35 46	34 10	32 39	31 12	29 49	28 29	27 14		20		
	30	47 47	45 46	43 52	42 01	40 14	38 33	36 55	35 21	33 52	32 26	31 03	29 45		30		
	40	50 06	48 08	46 15	44 26	42 39	40 58	39 20	37 45	36 14	34 46	33 21	32 00		40		
	50	52 02	50 08	48 17	46 30	44 46	43 06	41 28	39 53	38 21	36 52	35 26	34 03		50		
2	00	53 39	51 50	50 02	48 17	46 35	44 56	43 20	41 45	40 13	38 45	37 18	35 54	2	00		
	10	55 01	53 15	51 31	49 49	48 09	46 32	44 57	43 23	41 52	40 24	38 58	37 33		10		
	20	56 09	54 27	52 46	51 07	49 30	47 55	46 21	44 49	43 20	41 52	40 26	39 02		20		
	30	57 07	55 27	53 49	52 14	50 39	49 06	47 35	46 05	44 36	43 09	41 44	40 20		30		
	40	57 52	56 17	54 43	53 09	51 38	50 07	48 38	47 10	45 43	44 18	42 53	41 30		40		
	50	58 30	56 58	55 27	53 57	52 27	50 59	49 32	48 06	46 40	45 16	43 53	42 31		50		
3	00	59 00	57 31	56 03	54 35	53 09	51 43	50 18	48 53	47 29	46 07	44 45	43 24	3	00		
	10	59 24	57 58	56 33	55 07	53 43	52 19	50 56	49 33	48 11	46 50	45 30	44 10		10		
	20	59 41	58 17	56 55	55 33	54 10	52 49	51 28	50 07	48 47	47 27	46 08	44 49		20		
	30	59 53	58 33	57 12	55 52	54 32	53 13	51 53	50 33	49 15	47 58	46 40	45 23		30		
	40	60 01	58 42	57 24	56 06	54 48	53 30	52 13	50 56	49 39	48 22	47 06	45 50		40		
	50	60 03	58 47	57 31	56 16	54 59	53 44	52 28	51 12	49 57	48 42	47 27	46 12		50		
4	00	60 02	58 48	57 34	56 20	55 06	53 52	52 38	51 23	50 10	48 57	47 44	46 30	4	00		
	10	59 58	58 45	57 33	56 20	55 08	53 56	52 44	51 31	50 19	49 07	47 55	46 43		10		
	20	59 50	58 39	57 28	56 17	55 07	53 57	52 45	51 34	50 23	49 12	48 02	46 51		20		
	30	59 38	58 29	57 20	56 11	55 01	53 52	52 43	51 33	50 24	49 15	48 04	46 55		30		
	40	59 24	58 17	57 09	56 01	54 53	53 46	52 38	51 29	50 20	49 12	48 04	46 55		40		
	50	59 07	58 00	56 55	55 48	54 41	53 35	52 28	51 20	50 14	49 07	47 59	46 52		50		
5	00	58 47	57 42	56 36	55 31	54 26	53 21	52 15	51 09	50 04	48 58	47 52	46 46	5	00		
	10	58 24	57 20	56 16	55 12	54 08	53 04	51 59	50 54	49 50	48 45	47 41	46 35		10		
	20	57 59	56 56	55 53	54 50	53 47	52 43	51 41	50 37	49 34	48 30	47 26	46 22		20		
	30	57 30	56 29	55 27	54 26	53 24	52 22	51 19	50 17	49 14	48 11	47 09	46 06		30		
	40	57 00	55 59	54 59	53 58	52 57	51 56	50 54	49 53	48 51	47 50	46 48	45 45		40		
	50	56 27	55 28	54 27	53 28	52 28	51 28	50 27	49 26	48 26	47 26	46 25	45 23		50		
6	00	55 51	54 52	53 54	52 55	51 55	50 57	49 57	48 57	47 58	46 58	45 58	44 58	6	00		
	10	55 13	54 15	53 17	52 18	51 21	50 23	49 24	48 26	47 27	46 28	45 29	44 29		10		
	20	54 33	53 35	52 38	51 41	50 44	49 47	48 49	47 51	46 53	45 55	44 57	43 58		20		
	30	53 50	52 53	51 57	51 00	50 04	49 08	48 10	47 13	46 16	45 19	44 23	43 25		30		
	40	53 04	52 08	51 12	50 17	49 21	48 25	47 29	46 33	45 37	44 41	43 45	42 48		40		
	50	52 15	51 20	50 25	49 30	48 36	47 41	46 46	45 50	44 55	44 00	43 04	42 09		50		
7	00	51 24	50 30	49 36	48 42	47 47	46 54	45 59	45 04	44 10	43 16	42 21	41 26	7	00		
	10	50 30	49 37	48 43	47 49	46 56	46 03	45 10	44 16	43 23	42 29	41 36	40 42		10		
	20	49 34	48 40	47 48	46 56	46 03	45 11	44 17	43 25	42 32	41 39	40 47	39 54		20		
	30	48 34	47 42	46 51	46 00	45 08	44 14	43 22	42 31	41 39	40 48	39 56	39 03		30		
	40	47 32	46 41	45 49	44 58	44 07	43 16	42 25	41 34	40 43	39 52	39 02	38 11		40		
	50	46 26	45 35	44 45	43 55	43 04	42 14	41 24	40 34	39 44	38 55	38 05	37 15		50		
8	00	45 17	44 27	43 38	42 48	41 58	41 10	40 20	39 31	38 43	37 53	37 05	36 16	8	00		
	10	44 05	43 15	42 28	41 38	40 50	40 02	39 14	38 26	37 38	36 50	36 03	35 14		10		
	20	42 50	42 02	41 14	40 26	39 38	38 51	38 04	37 16	36 30	35 44	34 56	34 10		20		
	30	41 31	40 44	39 57	39 10	38 23	37 38	36 51	36 05	35 19	34 34	33 48	33 03		30		
	40	40 08	39 21	38 36	37 50	37 05	36 20	35 34	34 49	34 05	33 21	32 37	31 53		40		
	50	38 42	37 57	37 12	36 27	35 43	34 59	34 16	33 32	32 49	32 05	31 23	30 40		50		
9	00	37 12	36 28	35 45	35 00	34 18	33 35	32 52	32 10	31 28	30 47	30 06	29 24	9	00		
	10	35 38	34 56	34 13	33 31	32 49	32 08	31 27	30 46	30 06	29 26	28 45	28 06		10		
	20	34 00	33 19	32 38	31 57	31 17	30 38	29 58	29 18	28 40	28 01	27 23	26 45		20		
	30	32 19	31 38	30 59	30 20	29 42	29 04	28 25	27 48	27 11	26 33	25 57	25 20		30		
	40	30 33	29 55	29 17	28 39	28 03	27 26	26 50	26 14	25 38	25 03	24 28	23 54		40		
	50	28 43	28 07	27 31	26 55	26 20	25 45	25 11	24 37	24 03	23 30	22 56	22 24		50		
10	00	26 50	26 15	25 42	25 08	24 34	24 02	23 29	22 57	22 25	21 54	21 23	20 52	10	00		
	10	24 52	24 19	23 47	23 16	22 45	22 15	21 43	21 14	20 44	20 15	19 46	19 17		10		
	20	22 51	22 21	21 51	21 21	20 52	20 25	19 57	19 29	19 01	18 34	18 07	17 41		20		
	30	20 45	20 18	19 51	19 24	18 57	18 31	18 05	17 40	17 15	16 51	16 26	16 02		30		
	40	18 37	18 12	17 47	17 23	16 59	16 35	16 12	15 49	15 27	15 04	14 42	14 21		40		
	50	16 25	16 03	15 41	15 19	14 58	14 37	14 16	13 56	13 36	13 16	12 57	12 38		50		
11	00	14 11	13 51	13 32	13 13	12 54	12 36	12 18	12 00	11 43	11 26	11 10	10 52	11	00		
	10	11 53	11 37	11 20	11 04	10 49	10 34	10 19	10 03	9 49	9 35	9 20	9 06		10		
	20	9 33	9 20	9 07	8 54	8 41	8 29	8 17	8 04	7 53	7 41	7 30	7 18		20		
	30	7 12	7 02	6 52	6 42	6 32	6 23	6 14	6 04	5 56	5 47	5 39	5 30		30		
	40	4 49	4 42	4 35	4 29	4 22	4 16	4 10	4 03	3 58	3 52	3 46	3 40		40		
	50	2 25	2 21	2 18	2 14	2 11	2 08	2 05	2 02	1 59	1 56	1 54	1 51		50		
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00		

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 21°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 21°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	3 40	3 30	3 19	3 08	2 59	2 50	2 41	2 34	2 26	2 18	2 12	2 05	0	10
0	20	7 19	6 56	6 35	6 15	5 56	5 39	5 22	5 06	4 51	4 37	4 23	4 10	0	20
0	30	10 51	10 18	9 47	9 18	8 50	8 24	8 00	7 36	7 14	6 53	6 32	6 13	0	30
0	40	14 15	13 32	12 53	12 15	11 39	11 05	10 33	10 02	9 34	9 06	8 39	8 14	0	40
0	50	17 29	16 39	15 50	15 05	14 22	13 41	13 02	12 25	11 50	11 15	10 43	10 12	0	50
1	00	20 33	19 34	18 39	17 47	16 57	16 10	15 25	14 41	14 00	13 20	12 42	12 06	1	00
1	10	23 24	22 20	21 18	20 21	19 25	18 32	17 41	16 52	16 06	15 21	14 37	13 57	1	10
1	20	26 02	24 53	23 48	22 45	21 44	20 46	19 50	18 56	18 05	17 16	16 27	15 42	1	20
1	30	28 28	27 16	26 06	24 59	23 54	22 51	21 52	20 54	19 58	19 05	18 13	17 23	1	30
1	40	30 41	29 26	28 12	27 02	25 54	24 49	23 46	22 45	21 45	20 48	19 53	18 59	1	40
1	50	32 42	31 24	30 09	28 57	27 46	26 37	25 31	24 27	23 25	22 24	21 26	20 29	1	50
2	00	34 33	33 13	31 56	30 41	29 28	28 18	27 10	26 03	24 59	23 56	22 54	21 55	2	00
2	10	36 11	34 51	33 33	32 17	31 03	29 50	28 40	27 31	26 25	25 20	24 16	23 15	2	10
2	20	37 40	36 19	35 00	33 43	32 28	31 15	30 03	28 53	27 44	26 38	25 33	24 29	2	20
2	30	38 58	37 38	36 19	35 02	33 46	32 32	31 19	30 07	28 58	27 49	26 42	25 37	2	30
2	40	40 09	38 48	37 29	36 12	34 56	33 41	32 28	31 16	30 05	28 55	27 48	26 41	2	40
2	50	41 10	39 50	38 32	37 15	35 58	34 43	33 30	32 18	31 06	29 56	28 47	27 40	2	50
3	00	42 04	40 45	39 27	38 10	36 54	35 40	34 26	33 13	32 01	30 50	29 41	28 32	3	00
3	10	42 51	41 33	40 16	38 59	37 44	36 30	35 16	34 03	32 51	31 40	30 29	29 21	3	10
3	20	43 31	42 14	40 58	39 42	38 27	37 13	36 00	34 47	33 35	32 24	31 14	30 05	3	20
3	30	44 06	42 50	41 34	40 20	39 05	37 51	36 39	35 26	34 14	33 03	31 53	30 43	3	30
3	40	44 35	43 20	42 05	40 51	39 37	38 24	37 12	35 59	34 48	33 37	32 27	31 18	3	40
3	50	44 59	43 45	42 31	41 17	40 04	38 52	37 41	36 29	35 18	34 07	32 57	31 48	3	50
4	00	45 17	44 03	42 51	41 39	40 27	39 16	38 04	36 53	35 42	34 31	33 22	32 13	4	00
4	10	45 31	44 19	43 08	41 56	40 45	39 34	38 24	37 14	36 03	34 53	33 44	32 35	4	10
4	20	45 40	44 30	43 19	42 09	40 59	39 48	38 39	37 29	36 19	35 10	34 02	32 53	4	20
4	30	45 46	44 36	43 26	42 17	41 08	39 59	38 50	37 41	36 32	35 23	34 15	33 07	4	30
4	40	45 47	44 39	43 30	42 22	41 14	40 06	38 57	37 49	36 41	35 32	34 25	33 18	4	40
4	50	45 45	44 38	43 30	42 23	41 16	40 08	39 01	37 54	36 47	35 39	34 32	33 24	4	50
5	00	45 39	44 33	43 27	42 20	41 14	40 07	39 01	37 55	36 48	35 41	34 35	33 28	5	00
5	10	45 31	44 25	43 19	42 14	41 09	40 03	38 58	37 52	36 46	35 41	34 35	33 29	5	10
5	20	45 18	44 14	43 09	42 05	41 00	39 55	38 51	37 46	36 42	35 37	34 31	33 26	5	20
5	30	45 02	43 59	42 56	41 53	40 48	39 45	38 41	37 37	36 33	35 29	34 25	33 21	5	30
5	40	44 43	43 41	42 39	41 36	40 34	39 31	38 28	37 26	36 22	35 19	34 15	33 12	5	40
5	50	44 22	43 21	42 19	41 18	40 16	39 14	38 13	37 11	36 08	35 05	34 03	33 01	5	50
6	00	43 58	42 58	41 56	40 57	39 56	38 54	37 53	36 53	35 51	34 49	33 48	32 46	6	00
6	10	43 31	42 31	41 31	40 32	39 32	38 32	37 32	36 32	35 31	34 31	33 31	32 29	6	10
6	20	43 00	42 01	41 03	40 05	39 05	38 06	37 07	36 08	35 08	34 09	33 09	32 09	6	20
6	30	42 27	41 30	40 32	39 35	38 36	37 38	36 40	35 42	34 44	33 44	32 46	31 47	6	30
6	40	41 52	40 55	39 58	39 01	38 04	37 07	36 10	35 12	34 15	33 17	32 20	31 22	6	40
6	50	41 13	40 18	39 21	38 26	37 30	36 33	35 37	34 41	33 45	32 48	31 51	30 54	6	50
7	00	40 32	39 37	38 42	37 47	36 52	35 57	35 02	34 06	33 11	32 16	31 20	30 24	7	00
7	10	39 48	38 54	38 00	37 06	36 12	35 18	34 24	33 30	32 35	31 41	30 46	29 52	7	10
7	20	39 01	38 09	37 16	36 23	35 30	34 37	33 44	32 50	31 58	31 04	30 10	29 17	7	20
7	30	38 12	37 20	36 28	35 36	34 45	33 53	33 01	32 09	31 16	30 24	29 32	28 39	7	30
7	40	37 20	36 29	35 38	34 48	33 57	33 06	32 15	31 24	30 33	29 42	28 51	27 59	7	40
7	50	36 25	35 35	34 46	33 56	33 07	32 16	31 27	30 38	29 47	28 57	28 07	27 17	7	50
8	00	35 28	34 38	33 50	33 01	32 13	31 25	30 37	29 48	29 00	28 10	27 22	26 33	8	00
8	10	34 27	33 40	32 52	32 05	31 18	30 30	29 43	28 56	28 09	27 22	26 34	25 47	8	10
8	20	33 24	32 38	31 51	31 06	30 20	29 33	28 48	28 02	27 16	26 30	25 44	24 59	8	20
8	30	32 18	31 33	30 48	30 03	29 18	28 33	27 49	27 05	26 21	25 36	24 52	24 08	8	30
8	40	31 10	30 25	29 41	28 59	28 15	27 32	26 49	26 06	25 23	24 40	23 58	23 15	8	40
8	50	29 58	29 16	28 34	27 51	27 10	26 28	25 47	25 05	24 24	23 41	23 01	22 20	8	50
9	00	28 43	28 03	27 21	26 41	26 02	25 21	24 41	24 01	23 21	22 42	22 02	21 22	9	00
9	10	27 27	26 47	26 08	25 30	24 51	24 11	23 33	22 55	22 17	21 39	21 01	20 23	9	10
9	20	26 07	25 29	24 52	24 15	23 38	23 00	22 24	21 47	21 11	20 35	19 58	19 23	9	20
9	30	24 44	24 09	23 32	22 57	22 22	21 47	21 12	20 37	20 03	19 28	18 54	18 20	9	30
9	40	23 19	22 45	22 11	21 37	21 04	20 31	19 59	19 26	18 53	18 19	17 47	17 15	9	40
9	50	21 52	21 20	20 48	20 16	19 45	19 13	18 43	18 12	17 41	17 09	16 39	16 08	9	50
10	00	20 22	19 51	19 21	18 52	18 23	17 53	17 24	16 55	16 26	15 58	15 30	15 01	10	00
10	10	18 49	18 21	17 53	17 25	16 58	16 31	16 04	15 38	15 11	14 44	14 18	13 52	10	10
10	20	17 14	16 48	16 23	15 58	15 32	15 07	14 43	14 18	13 54	13 29	13 05	12 41	10	20
10	30	15 37	15 14	14 51	14 28	14 05	13 41	13 20	12 57	12 35	12 13	11 50	11 29	10	30
10	40	13 58	13 37	13 17	12 55	12 35	12 15	11 54	11 34	11 14	10 54	10 35	10 15	10	40
10	50	12 18	12 00	11 40	11 23	11 04	10 46	10 29	10 11	9 53	9 36	9 18	9 00	10	50
11	00	10 36	10 19	10 04	9 47	9 32	9 16	9 01	8 45	8 30	8 15	8 00	7 46	11	00
11	10	8 52	8 39	8 25	8 12	7 59	7 45	7 32	7 19	7 07	6 54	6 41	6 29	11	10
11	20	7 08	6 56	6 46	6 35	6 24	6 13	6 03	5 52	5 42	5 32	5 22	5 12	11	20
11	30	5 21	5 14	5 05	4 57	4 49	4 41	4 33	4 25	4 17	4 09	4 02	3 54	11	30
11	40	3 34	3 29	3 24	3 18	3 13	3 07	3 02	2 57	2 52	2 46	2 41	2 36	11	40
11	50	1 48	1 45	1 42	1 39	1 36	1 34	1 31	1 28	1 26	1 23	1 21	1 18	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 21°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 21°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	1 59	1 53	1 47	1 41	1 37	1 31	1 26	1 21	1 17	1 12	1 08		10	
	20	3 58	3 45	3 34	3 22	3 12	3 02	2 52	2 43	2 33	2 24	2 15		20	
	30	5 54	5 37	5 20	5 03	4 48	4 32	4 17	4 03	3 49	3 36	3 23		30	
	40	7 49	7 26	7 03	6 42	6 21	6 01	5 41	5 22	5 04	4 47	4 30		40	
	50	9 41	9 13	8 45	8 19	7 52	7 28	7 04	6 40	6 18	5 56	5 35		50	
1	00	11 30	10 57	10 25	9 53	9 22	8 53	8 25	7 58	7 30	7 04	6 40	1	00	
	10	13 16	12 38	12 00	11 24	10 49	10 15	9 43	9 11	8 41	8 11	7 42		10	
	20	14 57	14 15	13 33	12 53	12 14	11 37	11 00	10 24	9 49	9 17	8 44		20	
	30	16 35	15 48	15 02	14 18	13 35	12 54	12 14	11 35	10 56	10 19	9 43		30	
	40	18 07	17 16	16 27	15 40	14 53	14 08	13 25	12 42	12 01	11 21	10 41		40	
	50	19 34	18 40	17 48	16 57	16 08	15 20	14 33	13 47	13 02	12 19	11 37		50	
2	00	20 56	20 00	19 05	18 12	17 19	16 28	15 39	14 50	14 02	13 16	12 30	2	00	
	10	22 14	21 15	20 17	19 21	18 26	17 32	16 40	15 49	14 58	14 09	13 22		10	
	20	23 26	22 25	21 26	20 27	19 29	18 34	17 39	16 45	15 52	15 01	14 10		20	
	30	24 33	23 30	22 29	21 29	20 29	19 31	18 34	17 38	16 43	15 50	14 57		30	
	40	25 35	24 31	23 28	22 26	21 25	20 25	19 26	18 28	17 31	16 36	15 41		40	
	50	26 32	25 27	24 22	23 19	22 16	21 14	20 14	19 15	18 16	17 19	16 22		50	
3	00	27 24	26 17	25 12	24 08	23 04	22 01	20 59	19 58	18 56	17 58	17 01	3	00	
	10	28 12	27 04	25 58	24 53	23 48	22 44	21 41	20 39	19 37	18 36	17 37		10	
	20	28 55	27 47	26 40	25 34	24 28	23 23	22 19	21 16	20 13	19 11	18 10		20	
	30	29 33	28 25	27 18	26 11	25 04	23 59	22 53	21 49	20 46	19 43	18 41		30	
	40	30 07	29 00	27 52	26 44	25 37	24 31	23 25	22 20	21 15	20 12	19 09		40	
	50	30 38	29 30	28 21	27 13	26 06	24 59	23 54	22 47	21 42	20 38	19 35		50	
4	00	31 04	29 55	28 47	27 39	26 31	25 25	24 19	23 12	22 06	21 01	19 57	4	00	
	10	31 26	30 17	29 09	28 02	26 54	25 47	24 40	23 33	22 28	21 22	20 18		10	
	20	31 44	30 35	29 28	28 21	27 13	26 06	24 59	23 52	22 46	21 40	20 35		20	
	30	31 59	30 51	29 43	28 36	27 28	26 21	25 15	24 08	23 02	21 56	20 50		30	
	40	32 10	31 02	29 55	28 48	27 40	26 34	25 27	24 21	23 15	22 09	21 03		40	
	50	32 17	31 11	30 04	28 57	27 50	26 43	25 37	24 31	23 24	22 18	21 13		50	
5	00	32 21	31 15	30 09	29 03	27 56	26 50	25 44	24 38	23 31	22 26	21 21	5	00	
	10	32 23	31 17	30 12	29 06	28 00	26 54	25 48	24 43	23 36	22 31	21 26		10	
	20	32 21	31 16	30 10	29 06	28 00	26 55	25 50	24 44	23 39	22 34	21 29		20	
	30	32 16	31 11	30 07	29 03	27 58	26 54	25 49	24 44	23 39	22 34	21 30		30	
	40	32 08	31 04	30 01	28 57	27 53	26 49	25 45	24 41	23 36	22 32	21 28		40	
	50	31 58	30 55	29 52	28 49	27 45	26 42	25 39	24 35	23 32	22 28	21 24		50	
6	00	31 44	30 42	29 40	28 38	27 35	26 33	25 30	24 27	23 23	22 21	21 19	6	00	
	10	31 27	30 27	29 26	28 25	27 22	26 21	25 19	24 17	23 14	22 12	21 10		10	
	20	31 09	30 09	29 08	28 08	27 07	26 06	25 05	24 04	23 02	22 01	21 00		20	
	30	30 48	29 48	28 49	27 50	26 50	25 49	24 49	23 49	22 49	21 48	20 48		30	
	40	30 24	29 25	28 27	27 28	26 29	25 30	24 32	23 32	22 32	21 32	20 33		40	
	50	29 57	29 00	28 02	27 05	26 07	25 09	24 11	23 13	22 14	21 15	20 17		50	
7	00	29 28	28 31	27 35	26 39	25 42	24 45	23 49	22 52	21 54	20 56	19 59	7	00	
	10	28 56	28 01	27 06	26 11	25 15	24 19	23 23	22 27	21 31	20 34	19 38		10	
	20	28 23	27 29	26 35	25 41	24 46	23 51	22 57	22 02	21 06	20 12	19 16		20	
	30	27 46	26 54	26 01	25 08	24 14	23 21	22 28	21 34	20 41	19 47	18 53		30	
	40	27 09	26 17	25 25	24 33	23 42	22 50	21 58	21 05	20 13	19 20	18 27		40	
	50	26 27	25 37	24 47	23 56	23 06	22 16	21 25	20 33	19 42	18 51	18 00		50	
8	00	25 45	24 55	24 07	23 18	22 28	21 40	20 50	20 00	19 11	18 21	17 31	8	00	
	10	24 59	24 12	23 25	22 37	21 49	21 01	20 14	19 25	18 37	17 49	17 01		10	
	20	24 12	23 26	22 40	21 54	21 07	20 21	19 35	18 49	18 02	17 15	16 29		20	
	30	23 23	22 38	21 54	21 09	20 24	19 40	18 55	18 10	17 25	16 40	15 55		30	
	40	22 32	21 49	21 06	20 23	19 40	18 57	18 14	17 30	16 46	16 03	15 20		40	
	50	21 38	20 57	20 15	19 34	18 53	18 11	17 30	16 49	16 07	15 25	14 44		50	
9	00	20 43	20 03	19 23	18 44	18 04	17 24	16 45	16 04	15 25	14 45	14 05	9	00	
	10	19 45	19 07	18 30	17 52	17 13	16 36	15 58	15 20	14 42	14 04	13 26		10	
	20	18 46	18 10	17 35	16 59	16 22	15 46	15 10	14 34	13 58	13 22	12 46		20	
	30	17 43	17 11	16 37	16 03	15 28	14 55	14 21	13 46	13 12	12 38	12 04		30	
	40	16 42	16 10	15 38	15 06	14 33	14 02	13 29	12 57	12 25	11 53	11 21		40	
	50	15 38	15 09	14 38	14 08	13 37	13 07	12 38	12 07	11 37	11 07	10 37		50	
10	00	14 32	14 04	13 37	13 08	12 40	12 12	11 44	11 16	10 48	10 20	9 53	10	00	
	10	13 25	12 59	12 33	12 07	11 41	11 15	10 50	10 24	9 58	9 31	9 06		10	
	20	12 16	11 53	11 29	11 05	10 42	10 18	9 54	9 30	9 07	8 43	8 20		20	
	30	11 06	10 45	10 23	10 02	9 40	9 19	8 58	8 36	8 14	7 53	7 31		30	
	40	9 56	9 37	9 17	8 57	8 38	8 19	8 00	7 41	7 21	7 03	6 44		40	
	50	8 44	8 27	8 09	7 52	7 35	7 18	7 01	6 45	6 28	6 11	5 55		50	
11	00	7 31	7 16	7 01	6 47	6 32	6 18	6 03	5 49	5 33	5 19	5 05	11	00	
	10	6 17	6 05	5 52	5 40	5 28	5 15	5 04	4 51	4 39	4 27	4 15		10	
	20	5 02	4 53	4 42	4 33	4 22	4 13	4 03	3 54	3 44	3 34	3 24		20	
	30	3 47	3 40	3 33	3 25	3 17	3 10	3 03	2 56	2 48	2 40	2 34		30	
	40	2 32	2 27	2 22	2 17	2 11	2 07	2 02	1 57	1 52	1 48	1 42		40	
	50	1 16	1 13	1 11	1 09	1 06	1 04	1 02	0 58	0 56	0 54	0 52		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 22°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 22°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	48 38	36 54	29 13	23 58	20 10	17 21	15 09	13 25	12 01	10 50	9 52	9 01		10
	20	65 32	54 50	47 48	41 18	36 02	31 46	28 16	25 22	22 55	20 50	19 04	17 31		20
	30	72 24	64 58	58 14	52 16	47 02	42 29	39 32	35 06	32 06	29 30	27 12	25 10		30
	40	75 48	69 56	64 23	59 12	54 28	50 08	46 14	42 42	39 32	36 41	34 06	31 47		40
	50	77 44	72 54	68 13	63 46	59 33	55 36	51 56	48 32	45 23	42 28	39 48	37 21		50
1	00	78 51	74 46	70 45	66 51	63 08	59 33	56 10	52 58	49 57	47 07	44 29	42 00	1	00
	10	79 32	75 59	72 29	69 03	65 42	62 29	59 23	56 24	53 33	50 51	48 17	45 50		10
	20	80 55	76 47	73 40	70 30	67 36	64 40	61 49	59 03	56 23	53 49	51 22	49 01		20
	30	80 06	77 18	74 30	71 44	69 00	66 19	63 41	61 08	58 38	56 13	53 53	51 37		30
	40	80 10	77 37	75 04	72 33	70 02	67 34	65 09	62 46	60 26	58 09	55 55	53 46		40
	50	80 06	77 47	75 27	73 07	70 48	68 32	66 16	64 02	61 51	59 41	57 39	55 32		50
2	00	79 58	77 49	75 40	73 30	71 22	69 14	67 08	65 03	62 59	60 57	58 57	57 00	2	00
	10	79 47	77 46	75 46	73 46	71 46	69 46	67 47	65 50	63 53	61 57	60 04	58 11		10
	20	79 32	77 40	75 46	73 54	72 01	70 08	68 17	66 26	64 35	62 46	60 57	59 09		20
	30	79 15	77 29	75 43	73 57	72 14	70 24	68 39	66 53	65 08	63 23	61 40	59 57		30
	40	78 55	77 15	75 35	73 55	72 14	70 33	68 53	67 13	65 33	63 53	62 14	60 36		40
	50	78 33	76 59	75 23	73 43	72 12	70 37	69 01	67 26	65 50	64 14	62 40	61 05		50
3	00	78 11	76 40	75 10	73 39	72 07	70 36	69 04	67 33	66 02	64 30	62 59	61 28	3	00
	10	77 46	76 20	74 53	73 26	71 58	70 31	69 03	67 36	66 08	64 40	63 13	61 45		10
	20	77 20	75 58	74 34	73 11	71 46	70 23	68 58	67 34	66 09	64 45	63 20	61 56		20
	30	76 53	75 33	74 13	72 53	71 32	70 10	68 49	67 28	66 07	64 45	63 24	62 02		30
	40	76 25	75 08	73 50	72 32	71 15	69 57	68 38	67 20	66 01	64 41	63 23	62 04		40
	50	75 55	74 40	73 26	72 10	70 56	69 39	68 24	67 07	65 51	64 34	63 18	62 01		50
4	00	75 24	74 12	73 00	71 47	70 33	69 20	68 07	66 53	65 39	64 24	63 10	61 55	4	00
	10	74 52	73 42	72 32	71 21	70 10	68 58	67 47	66 35	65 23	64 11	62 59	61 46		10
	20	74 19	73 11	72 02	70 53	69 44	68 34	67 25	66 15	65 05	63 54	62 44	61 33		20
	30	73 44	72 38	71 31	70 24	69 17	68 09	67 01	65 53	64 44	63 36	62 27	61 17		30
	40	73 09	72 04	70 59	69 53	68 47	67 41	66 35	65 28	64 21	63 13	62 07	60 59		40
	50	72 32	71 28	70 24	69 20	68 16	67 11	66 06	65 01	63 55	62 50	61 45	60 39		50
5	00	71 53	70 51	69 48	68 46	67 43	66 39	65 36	64 32	63 27	62 23	61 19	60 14	5	00
	10	71 14	70 13	69 11	68 10	67 07	66 05	65 03	64 01	62 58	61 55	60 52	59 48		10
	20	70 33	69 33	68 33	67 32	66 31	65 29	64 29	63 27	62 25	61 24	60 22	59 19		20
	30	69 51	68 51	67 51	66 52	65 52	64 52	63 52	62 52	61 51	60 51	59 50	58 49		30
	40	69 07	68 08	67 10	66 10	65 12	64 13	63 14	62 14	61 14	60 14	59 14	58 15		40
	50	68 21	67 24	66 26	65 28	64 30	63 31	62 33	61 35	60 36	59 37	58 38	57 39		50
6	00	67 34	66 37	65 40	64 43	63 46	62 48	61 51	60 52	59 55	58 57	57 59	57 00	6	00
	10	66 45	65 49	64 52	63 56	62 59	62 03	61 05	60 09	59 11	58 15	57 17	56 19		10
	20	65 54	64 59	64 03	63 07	62 11	61 15	60 19	59 22	58 27	57 30	56 33	55 36		20
	30	65 02	64 07	63 11	62 16	61 21	60 25	59 29	58 34	57 39	56 42	55 46	54 51		30
	40	64 06	63 13	62 17	61 23	60 28	59 33	58 38	57 44	56 48	55 53	54 57	54 03		40
	50	63 10	62 16	61 22	60 27	59 33	58 39	57 44	56 50	55 56	55 01	54 06	53 12		50
7	00	62 11	61 17	60 23	59 30	58 36	57 42	56 48	55 54	55 00	54 07	53 13	52 18	7	00
	10	61 08	60 16	59 22	58 28	57 35	56 42	55 49	54 55	54 02	53 09	52 15	51 22		10
	20	60 04	59 12	58 18	57 25	56 32	55 39	54 46	53 54	53 01	52 08	51 17	50 24		20
	30	58 57	58 05	57 11	56 19	55 26	54 35	53 42	52 50	51 58	51 06	50 15	49 23		30
	40	57 46	56 55	56 02	55 10	54 18	53 26	52 34	51 43	50 51	50 01	49 09	48 17		40
	50	56 33	55 42	54 49	53 58	53 07	52 15	51 24	50 33	49 42	48 52	48 00	47 10		50
8	00	55 16	54 25	53 33	52 42	51 52	51 00	50 09	49 19	48 29	47 39	46 49	45 58	8	00
	10	53 56	53 05	52 14	51 24	50 32	49 42	48 52	48 03	47 13	46 23	45 33	44 45		10
	20	52 32	51 42	50 51	50 00	49 11	48 21	47 31	46 42	45 53	45 05	44 16	43 28		20
	30	51 04	50 14	49 23	48 34	47 44	46 55	46 06	45 18	44 30	43 42	42 55	42 08		30
	40	49 32	48 42	47 52	47 03	46 14	45 26	44 38	43 51	43 03	42 16	41 29	40 43		40
	50	47 54	47 06	46 16	45 28	44 40	43 52	43 05	42 18	41 32	40 46	40 00	39 15		50
9	00	46 13	45 24	44 36	43 48	43 01	42 14	41 28	40 42	39 57	39 12	38 28	37 43	9	00
	10	44 26	43 38	42 51	42 04	41 18	40 32	39 46	39 02	38 17	37 34	36 51	36 08		10
	20	42 34	41 47	41 00	40 15	39 30	38 45	38 01	37 17	36 35	35 52	35 10	34 28		20
	30	40 37	39 51	39 05	38 21	37 37	36 53	36 11	35 29	34 47	34 06	33 25	32 45		30
	40	38 33	37 49	37 05	36 21	35 38	34 57	34 15	33 35	32 55	32 15	31 36	30 55		40
	50	35 24	35 41	34 58	34 17	33 36	32 55	32 15	31 37	30 58	30 21	29 43	29 06		50
10	00	34 09	33 28	32 47	32 07	31 28	30 49	30 12	29 34	28 57	28 21	27 46	27 11	10	00
	10	31 47	31 08	30 29	29 51	29 13	28 37	28 02	27 26	26 52	26 18	25 44	25 12		10
	20	29 20	28 42	28 05	27 31	26 55	26 20	25 47	25 14	24 42	24 11	23 38	23 09		20
	30	26 46	26 11	25 37	25 03	24 31	24 00	23 28	22 58	22 28	21 59	21 30	21 02		30
	40	24 05	23 34	23 02	22 31	22 02	21 33	21 05	20 37	20 10	19 44	19 17	18 52		40
	50	21 20	20 51	20 23	19 56	19 28	19 02	18 37	18 13	17 48	17 24	17 01	16 38		50
11	00	18 28	18 03	17 38	17 15	16 51	16 27	16 06	15 44	15 23	15 02	14 41	14 22	11	00
	10	15 32	15 10	14 50	14 29	14 09	13 50	13 31	13 12	12 54	12 36	12 19	12 03		10
	20	12 31	12 13	12 56	12 40	12 24	12 08	11 53	11 38	11 23	11 08	10 54	10 40		20
	30	9 27	9 14	9 00	8 47	8 35	8 23	8 12	8 00	7 49	7 39	7 27	7 17		30
	40	6 20	6 11	6 01	5 53	5 44	5 37	5 28	5 21	5 13	5 07	4 59	4 53		40
	50	3 11	3 06	3 01	2 57	2 53	2 49	2 45	2 41	2 37	2 34	2 30	2 26		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 22°.			DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 22°.		
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.					
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.				
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00				
	10	8 17	7 40	7 06	6 36	6 10	5 46	5 25	5 05	4 47	4 31	4 15	4 01		10				
	20	16 11	14 59	13 56	13 00	12 09	11 23	10 41	10 03	9 29	8 56	8 27	7 59		20				
	30	23 21	21 44	20 17	18 59	17 48	16 43	15 44	14 49	13 59	13 13	12 31	11 50		30				
	40	29 41	27 47	26 02	24 27	23 00	21 41	20 26	19 19	18 15	17 17	16 22	15 32		40				
	50	35 06	33 01	31 06	29 20	27 42	26 11	24 46	23 28	22 13	21 05	20 01	19 00		50				
1	00	39 41	37 33	35 31	33 38	31 52	30 14	28 41	27 14	25 52	24 36	23 24	22 15	1	00				
	10	43 33	41 23	39 19	37 23	35 34	33 50	32 12	30 40	29 12	27 49	26 30	25 17		10				
	20	46 46	44 37	42 34	40 37	38 46	37 00	35 19	33 43	32 12	30 44	29 22	28 03		20				
	30	49 26	47 21	45 20	43 24	41 33	39 46	38 03	36 26	34 52	33 22	31 56	30 34		30				
	40	51 40	49 39	47 41	45 46	43 57	42 11	40 28	38 50	37 16	35 43	34 16	32 51		40				
	50	53 31	51 34	49 39	47 49	46 01	44 16	42 34	40 56	39 21	37 49	36 20	34 54		50				
2	00	55 05	53 11	51 21	49 32	47 48	46 05	44 25	42 47	41 13	39 40	38 11	36 45	2	00				
	10	56 21	54 32	52 46	51 01	49 18	47 38	46 00	44 24	42 51	41 19	39 49	38 23		10				
	20	57 24	55 39	53 56	52 16	50 36	48 58	47 22	45 49	44 16	42 45	41 17	39 51		20				
	30	58 16	56 36	54 56	53 18	51 42	50 07	48 33	47 01	45 30	44 01	42 34	41 09		30				
	40	58 58	57 22	55 46	54 11	52 38	51 05	49 33	48 03	46 35	45 07	43 41	42 17		40				
	50	59 32	57 59	56 27	54 55	53 24	51 54	50 25	48 56	47 29	46 04	44 39	43 15		50				
3	00	59 58	58 29	56 59	55 30	54 02	52 34	51 07	49 42	48 16	46 52	45 29	44 06	3	00				
	10	60 18	58 51	57 24	55 58	54 34	53 09	51 44	50 20	48 57	47 34	46 12	44 51		10				
	20	60 32	59 08	57 44	56 20	54 58	53 35	52 13	50 50	49 29	48 08	46 48	45 29		20				
	30	60 40	59 19	57 58	56 37	55 17	53 55	52 35	51 15	49 56	48 37	47 18	46 00		30				
	40	60 45	59 26	58 07	56 48	55 30	54 11	52 53	51 35	50 17	48 59	47 42	46 26		40				
	50	60 45	59 29	58 11	56 54	55 38	54 22	53 05	51 49	50 33	49 17	48 01	46 46		50				
4	00	60 41	59 26	58 12	56 57	55 43	54 28	53 13	51 58	50 43	49 29	48 15	47 01	4	00				
	10	60 33	59 21	58 08	56 55	55 42	54 30	53 16	52 03	50 50	49 38	48 25	47 12		10				
	20	60 23	59 12	58 00	56 50	55 38	54 27	53 16	52 04	50 53	49 42	48 30	47 19		20				
	30	60 09	59 00	57 49	56 40	55 31	54 21	53 12	52 02	50 51	49 42	48 32	47 22		30				
	40	59 52	58 45	57 36	56 28	55 21	54 12	53 03	51 55	50 46	49 38	48 29	47 20		40				
	50	59 32	58 26	57 19	56 13	55 06	53 59	52 52	51 45	50 38	49 30	48 23	47 16		50				
5	00	59 09	58 04	56 59	55 54	54 49	53 44	52 37	51 31	50 25	49 20	48 13	47 06	5	00				
	10	58 45	57 41	56 37	55 33	54 28	53 24	52 20	51 15	50 10	49 05	48 00	46 55		10				
	20	58 17	57 15	56 11	55 09	54 06	53 03	51 59	50 56	49 52	48 48	47 44	46 40		20				
	30	57 47	56 46	55 44	54 42	53 41	52 38	51 35	50 33	49 30	48 28	47 25	46 22		30				
	40	57 14	56 14	55 13	54 13	53 12	52 10	51 09	50 08	49 06	48 05	47 03	46 01		40				
	50	56 40	55 41	54 40	53 40	52 41	51 41	50 40	49 40	48 40	47 38	46 38	45 37		50				
6	00	56 02	55 03	54 05	53 06	52 08	51 08	50 09	49 09	48 10	47 10	46 10	45 10	6	00				
	10	55 22	54 24	53 26	52 28	51 31	50 32	49 35	48 36	47 37	46 39	45 39	44 40		10				
	20	54 40	53 43	52 46	51 49	50 52	49 54	48 57	48 00	47 01	46 03	45 05	44 08		20				
	30	53 55	52 59	52 03	51 07	50 10	49 14	48 17	47 21	46 24	45 26	44 30	43 33		30				
	40	53 08	52 13	51 17	50 22	49 26	48 31	47 35	46 39	45 43	44 47	43 51	42 55		40				
	50	52 18	51 23	50 29	49 34	48 39	47 44	46 50	45 55	45 00	44 04	43 09	42 14		50				
7	00	51 25	50 31	49 37	48 44	47 50	46 56	46 02	45 08	44 14	43 19	42 25	41 31	7	00				
	10	50 30	49 37	48 44	47 51	46 58	46 04	45 12	44 18	43 25	42 31	41 38	40 45		10				
	20	49 32	48 39	47 47	46 55	46 02	45 10	44 18	43 26	42 33	41 41	40 48	39 56		20				
	30	48 31	47 40	46 47	45 56	45 05	44 14	43 23	42 31	41 39	40 47	39 56	39 05		30				
	40	47 27	46 37	45 45	44 55	44 04	43 13	42 23	41 33	40 42	39 51	39 01	38 11		40				
	50	46 20	45 30	44 41	43 50	43 01	42 11	41 22	40 32	39 42	38 53	38 03	37 14		50				
8	00	45 10	44 21	43 32	42 43	41 54	41 05	40 16	39 28	38 39	37 50	37 03	36 15	8	00				
	10	43 57	43 09	42 21	41 33	40 44	39 56	39 08	38 21	37 34	36 47	35 59	35 12		10				
	20	42 41	41 53	41 06	40 19	39 31	38 45	37 58	37 12	36 26	35 39	34 53	34 07		20				
	30	41 21	40 34	39 45	39 03	38 15	37 30	36 45	35 59	35 14	34 29	33 44	32 59		30				
	40	39 57	38 12	37 27	37 42	36 56	36 12	35 28	34 44	34 00	33 15	32 32	31 49		40				
	50	38 30	37 46	37 01	36 19	35 35	34 51	34 08	33 25	32 42	32 00	31 17	30 36		50				
9	00	37 00	36 17	35 33	34 51	34 09	33 26	32 44	32 03	31 21	30 41	29 59	29 20	9	00				
	10	35 26	34 44	34 01	33 21	32 39	31 59	31 19	30 38	29 58	29 18	28 39	28 00		10				
	20	33 48	33 07	32 26	31 47	31 07	30 28	29 49	29 10	28 32	27 54	27 16	26 38		20				
	30	32 06	31 26	30 46	30 09	29 31	28 53	28 16	27 39	27 02	26 27	25 50	25 14		30				
	40	30 20	29 43	29 05	28 29	27 52	27 15	26 40	26 05	25 30	24 55	24 21	23 47		40				
	50	28 30	27 55	27 19	26 45	26 09	25 35	25 02	24 29	23 55	23 23	22 50	22 18		50				
10	00	26 37	26 03	25 29	24 56	24 24	23 52	23 21	22 49	22 18	21 47	21 16	20 46	10	00				
	10	24 40	24 08	23 36	23 05	22 35	22 04	21 35	21 05	20 37	20 08	19 39	19 11		10				
	20	22 39	22 10	21 40	21 12	20 43	20 16	19 48	19 20	18 54	18 27	17 59	17 35		20				
	30	20 35	20 07	19 40	19 14	18 48	18 23	17 57	17 33	17 08	16 44	16 20	15 57		30				
	40	18 27	18 02	17 36	17 14	16 50	16 27	16 05	15 42	15 20	14 58	14 36	14 15		40				
	50	16 16	15 54	15 32	15 11	14 50	14 30	14 10	13 50	13 30	13 11	12 51	12 33		50				
11	00	14 02	13 43	13 24	13 06	12 47	12 29	12 12	11 55	11 38	11 21	11 05	10 48	11	00				
	10	11 46	11 30	11 14	10 59	10 43	10 28	10 13	9 59	9 44	9 30	9							

AZIMUTH OR TRUE BEARING.

LATITUDE 22°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 22°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		0	0	0	0	0	0	0	0	0	0	0	0		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	3 49	3 36	3 25	3 14	3 04	2 55	2 46	2 37	2 30	2 22	2 15	2 09		10
	20	7 34	7 09	6 47	6 27	6 06	5 48	5 31	5 15	4 58	4 44	4 30	4 15		20
	30	11 12	10 37	10 06	9 35	9 06	8 39	8 13	7 48	7 25	7 03	6 42	6 21		30
	40	14 43	13 58	13 17	12 37	11 59	11 24	10 51	10 18	9 48	9 19	8 51	8 24		40
	50	18 04	17 09	16 19	15 31	14 46	14 04	13 22	12 44	12 07	11 31	10 57	10 25		50
1	00	21 11	20 10	19 12	18 17	17 25	16 36	15 48	15 03	14 20	13 39	12 59	12 21	1	00
	10	24 05	22 59	21 54	20 54	19 55	19 00	18 07	17 17	16 28	15 41	14 57	14 14		10
	20	26 46	25 34	24 26	23 20	22 17	21 17	20 18	19 23	18 30	17 39	16 49	16 01		20
	30	29 14	27 58	26 46	25 36	24 28	23 24	22 22	21 22	20 24	19 30	18 36	17 44		30
	40	31 29	30 10	28 54	27 42	26 31	25 23	24 17	23 14	22 13	21 13	20 17	19 21		40
	50	33 30	32 09	30 52	29 36	28 23	27 13	26 04	24 57	23 53	22 51	21 51	20 52		50
2	00	35 20	33 58	32 39	31 22	30 06	28 54	27 43	26 35	25 28	24 23	23 20	22 18	2	00
	10	36 58	35 35	34 15	32 57	31 40	30 26	29 14	28 03	26 54	25 48	24 42	23 39		10
	20	38 26	37 03	35 42	34 23	33 06	31 50	30 37	29 25	28 15	27 06	25 59	24 53		20
	30	39 44	38 21	37 01	35 41	34 23	33 07	31 52	30 39	29 28	28 19	27 10	26 02		30
	40	40 52	39 30	38 10	36 51	35 32	34 16	33 01	31 47	30 35	29 24	28 15	27 06		40
	50	41 52	40 31	39 11	37 52	36 34	35 18	34 03	32 49	31 36	30 24	29 13	28 04		50
3	00	42 45	41 24	40 05	38 46	37 29	36 13	34 58	33 44	32 30	31 18	30 08	28 57	3	00
	10	43 31	42 11	40 52	39 35	38 18	37 02	35 47	34 32	33 19	32 07	30 55	29 45		10
	20	44 10	42 51	41 34	40 17	39 00	37 45	36 30	35 16	34 02	32 50	31 38	30 27		20
	30	44 42	43 24	42 08	40 52	39 36	38 22	37 07	35 54	34 41	33 29	32 17	31 06		30
	40	45 09	43 53	42 38	41 23	40 08	38 54	37 40	36 27	35 14	34 02	32 51	31 40		40
	50	45 31	44 16	43 02	41 47	40 33	39 20	38 07	36 55	35 43	34 31	33 20	32 09		50
4	00	45 48	44 33	43 20	42 07	40 54	39 42	38 30	37 18	36 07	34 55	33 44	32 34	4	00
	10	45 59	44 47	43 35	42 23	41 11	40 00	38 49	37 37	36 26	35 16	34 05	32 55		10
	20	46 07	44 56	43 45	42 34	41 23	40 13	39 02	37 52	36 41	35 32	34 22	33 12		20
	30	46 12	45 01	43 51	42 41	41 31	40 22	39 12	38 03	36 53	35 44	34 35	33 26		30
	40	46 11	45 02	43 53	42 44	41 36	40 27	39 18	38 09	37 01	35 52	34 43	33 35		40
	50	46 07	44 59	43 52	42 44	41 36	40 29	39 21	38 13	37 05	35 57	34 49	33 42		50
5	00	46 00	44 54	43 47	42 40	41 33	40 26	39 20	38 12	37 05	35 59	34 51	33 45	5	00
	10	45 50	44 43	43 38	42 32	41 27	40 21	39 15	38 09	37 02	35 56	34 50	33 45		10
	20	45 36	44 31	43 26	42 22	41 17	40 12	39 07	38 02	36 57	35 51	34 45	33 40		20
	30	45 19	44 15	43 11	42 05	41 04	40 00	38 56	37 52	36 48	35 44	34 39	33 34		30
	40	44 58	43 56	42 54	41 51	40 47	39 45	38 42	37 39	36 35	35 32	34 29	33 25		40
	50	44 36	43 34	42 33	41 31	40 29	39 27	38 25	37 22	36 20	35 18	34 15	33 13		50
6	00	44 10	43 09	42 09	41 08	40 07	39 06	38 05	37 03	36 02	35 01	33 59	32 57	6	00
	10	43 40	42 41	41 42	40 42	39 42	38 43	37 42	36 42	35 41	34 41	33 39	32 38		10
	20	43 09	42 11	41 13	40 13	39 14	38 16	37 17	36 17	35 18	34 18	33 18	32 18		20
	30	42 36	41 38	40 40	39 42	38 44	37 47	36 49	35 50	34 52	33 53	32 54	31 55		30
	40	41 59	41 01	40 05	39 08	38 11	37 15	36 18	35 20	34 22	33 25	32 27	31 29		40
	50	41 18	40 23	39 27	38 32	37 35	36 40	35 44	34 48	33 51	32 54	31 58	31 01		50
7	00	40 36	39 41	38 48	37 53	36 57	36 03	35 08	34 12	33 17	32 21	31 25	30 30	7	00
	10	39 51	38 58	38 04	37 10	36 16	35 23	34 29	33 34	32 40	31 45	30 51	29 56		10
	20	39 04	38 11	37 19	36 26	35 33	34 41	33 47	32 55	32 01	31 07	30 15	29 21		20
	30	38 13	37 21	36 30	35 39	34 47	33 56	33 04	32 11	31 19	30 27	29 35	28 43		30
	40	37 21	36 30	35 40	34 49	33 58	33 08	32 17	31 27	30 35	29 44	28 53	28 03		40
	50	36 24	35 35	34 46	33 57	33 07	32 18	31 28	30 39	29 49	29 00	28 10	27 20		50
8	00	35 26	34 37	33 49	33 01	32 13	31 25	30 37	29 49	29 00	28 12	27 23	26 35	8	00
	10	34 25	33 38	32 51	32 04	31 17	30 31	29 43	28 56	28 09	27 22	26 35	25 48		10
	20	33 21	32 35	31 50	31 03	30 16	29 33	28 48	28 01	27 16	26 30	25 44	25 00		20
	30	32 14	31 30	30 46	30 01	29 16	28 33	27 49	27 04	26 20	25 36	24 52	24 08		30
	40	31 05	30 22	29 39	28 56	28 13	27 30	26 45	26 05	25 22	24 40	23 57	23 14		40
	50	29 54	29 11	28 30	27 48	27 07	26 26	25 45	25 04	24 22	23 41	23 00	22 20		50
9	00	28 39	27 58	27 18	26 38	25 58	25 18	24 38	23 59	23 20	22 41	22 01	21 22	9	00
	10	27 21	26 42	26 04	25 26	24 47	24 09	23 31	22 53	22 16	21 38	21 00	20 23		10
	20	26 01	25 24	24 47	24 10	23 33	22 58	22 22	21 45	21 09	20 34	19 57	19 22		20
	30	24 38	24 03	23 28	22 52	22 18	21 44	21 10	20 35	20 00	19 26	18 52	18 18		30
	40	23 13	22 40	22 07	21 34	21 00	20 27	19 55	19 22	18 50	18 18	17 45	17 13		40
	50	21 45	21 14	20 43	20 12	19 40	19 10	18 39	18 09	17 37	17 07	16 38	16 08		50
10	00	20 15	19 46	19 17	18 48	18 18	17 50	17 21	16 53	16 24	15 55	15 27	14 59	10	00
	10	18 43	18 16	17 49	17 22	16 54	16 28	16 00	15 35	15 08	14 43	14 16	13 50		10
	20	17 09	16 44	16 18	15 53	15 28	15 04	14 40	14 15	13 51	13 27	13 03	12 40		20
	30	15 32	15 09	14 47	14 23	14 01	13 39	13 16	12 54	12 32	12 10	11 49	11 27		30
	40	13 54	13 33	13 13	12 52	12 32	12 12	11 51	11 32	11 12	10 50	10 33	10 13		40
	50	12 14	11 55	11 37	11 19	11 02	10 44	10 26	10 08	9 51	9 34	9 17	8 59		50
11	00	10 32	10 16	10 01	9 45	9 29	9 14	8 59	8 44	8 29	8 14	7 59	7 44	11	00
	10	8 49	8 35	8 22	8 09	7 56	7 43	7 31	7 18	7 05	6 53	6 40	6 28		10
	20	7 04	6 54	6 43	6 32	6 23	6 12	6 02	5 52	5 41	5 31	5 22	5 12		20
	30	5 19	5 11	5 02	4 55	4 47	4 39	4 32	4 24	4 16	4 09	4 01	3 54		30
	40	3 34	3 28	3 22	3 17	3 11	3 07	3 01	2 57	2 52	2 46	2 41	2 36		40
	50	1 47	1 44	1 42	1 39	1 36	1 34	1 31	1 29	1 26	1 23	1 21	1 19		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 22°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 22°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	2 02	1 55	1 50	1 44	1 38	1 33	1 28	1 23	1 18	1 14	1 09		10	
	20	4 03	3 51	3 38	3 27	3 16	3 05	2 56	2 45	2 36	2 26	2 18		20	
	30	6 02	5 44	5 26	5 09	4 53	4 36	4 21	4 07	3 53	3 39	3 26		30	
	40	8 00	7 36	7 12	6 49	6 28	6 07	5 47	5 28	5 09	4 51	4 33		40	
	50	9 54	9 24	8 55	8 28	8 02	7 36	7 12	6 47	6 24	6 02	5 40		50	
1	00	11 45	11 10	10 37	10 04	9 32	9 02	8 33	8 05	7 37	7 11	6 45	1	00	
	10	13 32	12 52	12 14	11 37	11 01	10 27	9 53	9 20	8 49	8 18	7 49		10	
	20	15 16	14 31	13 49	13 07	12 27	11 48	11 10	10 35	9 59	9 25	8 52		20	
	30	16 55	16 05	15 18	14 33	13 50	13 08	12 26	11 46	11 07	10 28	9 52		30	
	40	18 27	17 35	16 45	15 56	15 09	14 23	13 38	12 54	12 12	11 31	10 51		40	
	50	19 56	19 00	18 07	17 14	16 24	15 34	14 47	14 00	13 14	12 30	11 47		50	
2	00	21 19	20 21	19 25	18 30	17 35	16 43	15 53	15 02	14 14	13 27	12 41	2	00	
	10	22 37	21 36	20 40	19 40	18 44	17 49	16 55	16 03	15 12	14 22	13 32		10	
	20	23 50	22 47	21 46	20 45	19 47	18 50	17 55	16 59	16 05	15 13	14 21		20	
	30	24 57	23 53	22 50	21 48	20 47	19 48	18 50	17 52	16 57	16 03	15 08		30	
	40	26 00	24 53	23 48	22 45	21 43	20 42	19 42	18 43	17 45	16 49	15 52		40	
	50	26 56	25 49	24 43	23 38	22 35	21 32	20 30	19 30	18 30	17 31	16 34		50	
3	00	27 48	26 40	25 33	24 27	23 22	22 19	21 16	20 13	19 12	18 13	17 13	3	00	
	10	28 35	27 27	26 19	25 12	24 07	23 01	21 57	20 53	19 51	18 50	17 49		10	
	20	29 18	28 09	27 01	25 53	24 46	23 40	22 35	21 31	20 27	19 25	18 22		20	
	30	29 57	28 47	27 38	26 30	25 22	24 16	23 10	22 04	21 00	19 56	18 53		30	
	40	30 30	29 20	28 11	27 02	25 55	24 47	23 41	22 35	21 30	20 25	19 21		40	
	50	31 00	29 49	28 41	27 32	26 24	25 17	24 09	23 02	21 57	20 52	19 46		50	
4	00	31 24	30 15	29 05	27 57	26 49	25 41	24 34	23 27	22 20	21 14	20 09	4	00	
	10	31 46	30 36	29 27	28 19	27 11	26 02	24 55	23 48	22 41	21 35	20 29		10	
	20	32 03	30 53	29 45	28 37	27 29	26 21	25 13	24 06	22 59	21 53	20 46		20	
	30	32 17	31 08	29 59	28 51	27 44	26 36	25 28	24 21	23 15	22 09	21 02		30	
	40	32 28	31 19	30 11	29 03	27 56	26 48	25 41	24 33	23 26	22 20	21 14		40	
	50	32 34	31 26	30 19	29 12	28 05	26 58	25 50	24 43	23 37	22 31	21 23		50	
5	00	32 38	31 30	30 24	29 17	28 10	27 03	25 56	24 49	23 43	22 37	21 30	5	00	
	10	32 38	31 32	30 25	29 19	28 13	27 07	26 01	24 54	23 48	22 42	21 35		10	
	20	32 36	31 30	30 24	29 18	28 13	27 07	26 02	24 55	23 50	22 44	21 38		20	
	30	32 30	31 25	30 20	29 15	28 09	27 04	26 00	24 55	23 49	22 44	21 38		30	
	40	32 21	31 16	30 12	29 08	28 04	27 00	25 56	24 50	23 46	22 41	21 37		40	
	50	32 10	31 06	30 02	28 59	27 55	26 52	25 48	24 45	23 41	22 37	21 33		50	
6	00	31 35	30 53	29 50	28 48	27 45	26 42	25 40	24 36	23 33	22 30	21 26	6	00	
	10	31 38	30 36	29 34	28 33	27 31	26 29	25 27	24 25	23 22	22 20	21 17		10	
	20	31 18	30 17	29 17	28 17	27 16	26 14	25 13	24 12	23 11	22 09	21 06		20	
	30	30 56	29 56	28 57	27 57	26 58	25 57	24 57	23 56	22 56	21 55	20 52		30	
	40	30 31	29 32	28 34	27 35	26 36	25 38	24 38	23 39	22 38	21 39	20 39		40	
	50	30 04	29 06	28 09	27 11	26 14	25 16	24 17	23 19	22 20	21 22	20 22		50	
7	00	29 34	28 37	27 41	26 45	25 49	24 52	23 54	22 56	21 59	21 02	20 03	7	00	
	10	29 02	28 06	27 11	26 16	25 20	24 25	23 29	22 33	21 37	20 41	19 43		10	
	20	28 28	27 33	26 39	25 45	24 51	23 56	23 02	22 07	21 12	20 17	19 21		20	
	30	27 50	26 58	26 05	25 12	24 19	23 26	22 33	21 39	20 45	19 51	18 57		30	
	40	27 12	26 20	25 28	24 37	23 46	22 53	22 02	21 09	20 16	19 24	18 31		40	
	50	26 31	25 40	24 50	24 00	23 09	22 19	21 28	20 37	19 46	18 55	18 03		50	
8	00	25 47	24 57	24 09	23 20	22 31	21 42	20 53	20 03	19 13	18 24	17 34	8	00	
	10	25 01	24 14	23 27	22 40	21 52	21 04	20 16	19 28	18 40	17 52	17 04		10	
	20	24 14	23 27	22 42	21 56	21 10	20 24	19 38	18 51	18 04	17 18	16 31		20	
	30	23 24	22 39	21 55	21 11	20 27	19 41	18 57	18 12	17 27	16 43	15 57		30	
	40	22 32	21 49	21 06	20 24	19 41	18 59	18 15	17 32	16 48	16 05	15 22		40	
	50	21 38	20 57	20 16	19 35	18 54	18 13	17 32	16 50	16 08	15 27	14 45		50	
9	00	20 42	20 03	19 23	18 44	18 05	17 26	16 46	16 06	15 27	14 47	14 06	9	00	
	10	19 45	19 07	18 29	17 52	17 15	16 37	15 59	15 21	14 43	14 06	13 28		10	
	20	18 46	18 09	17 34	16 58	16 22	15 47	15 11	14 35	13 59	13 23	12 46		20	
	30	17 44	17 10	16 36	16 02	15 29	14 55	14 22	13 47	13 13	12 39	12 05		30	
	40	16 42	16 09	15 38	15 06	14 34	14 02	13 30	12 58	12 26	11 54	11 22		40	
	50	15 37	15 07	14 38	14 07	13 37	13 07	12 37	12 08	11 38	11 08	10 38		50	
10	00	14 31	14 03	13 35	13 08	12 40	12 12	11 44	11 16	10 49	10 21	9 52	10	00	
	10	13 25	12 58	12 32	12 06	11 41	11 15	10 49	10 23	9 58	9 33	9 07		10	
	20	12 15	11 51	11 28	11 04	10 41	10 18	9 54	9 30	9 07	8 44	8 19		20	
	30	11 06	10 44	10 23	10 01	9 40	9 19	8 57	8 35	8 15	7 54	7 32		30	
	40	9 55	9 35	9 16	8 57	8 38	8 19	8 00	7 41	7 22	7 02	6 43		40	
	50	8 43	8 25	8 09	7 52	7 35	7 18	7 02	6 45	6 28	6 12	5 54		50	
11	00	7 30	7 15	7 00	6 46	6 32	6 17	6 03	5 49	5 33	5 19	5 05	11	00	
	10	6 16	6 03	5 52	5 39	5 28	5 15	5 03	4 51	4 39	4 27	4 15		10	
	20	5 01	4 52	4 41	4 32	4 23	4 13	4 03	3 54	3 44	3 34	3 24		20	
	30	3 47	3 40	3 31	3 25	3 18	3 10	3 03	2 55	2 49	2 41	2 33		30	
	40	2 31	2 26	2 22	2 17	2 11	2 07	2 02	1 57	1 52	1 48	1 42		40	
	50	1 16	1 14	1 10	1 08	1 06	1 03	1 01	0 59	0 56	0 53	0 51		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 23°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 23°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	65 57	48 17	36 40	29 01	23 46	20 00	17 10	15 01	13 17	11 53	10 43	9 44		10
	20	76 42	58 21	55 35	47 32	41 01	35 46	31 36	28 01	25 07	22 41	20 37	18 51		20
	30	80 14	72 13	64 45	57 59	51 59	46 44	42 10	38 13	34 43	31 49	29 12	26 54		30
	40	81 48	75 39	69 43	64 08	58 55	54 10	49 50	45 54	42 22	39 11	36 20	33 46		40
	50	83 32	77 33	72 41	67 59	63 29	59 15	55 17	51 36	48 11	45 01	42 07	39 27		50
1	00	82 52	78 40	74 32	70 31	66 35	62 49	59 14	55 50	52 37	49 34	46 44	44 06	1	00
	10	82 57	79 20	75 46	72 14	68 46	65 25	62 10	59 02	56 02	53 11	50 29	47 53		10
	20	82 54	79 43	76 33	73 25	70 19	67 18	64 21	61 28	58 42	56 00	53 26	50 57		20
	30	82 44	79 53	77 93	74 15	71 27	68 42	65 59	63 21	60 46	58 15	55 49	53 28		30
	40	82 30	79 55	77 21	74 48	72 15	69 44	67 14	64 47	62 23	60 02	57 44	55 30		40
	50	82 12	79 51	77 30	75 09	72 49	70 29	68 10	65 54	63 40	61 27	59 17	57 10		50
2	00	81 52	79 42	77 32	75 21	73 12	71 03	68 53	66 46	64 40	62 35	60 32	58 31	2	00
	10	81 50	79 39	77 28	75 26	73 25	71 25	69 25	67 25	65 26	63 28	61 32	59 37		10
	20	81 06	79 13	77 20	75 26	73 33	71 39	69 46	67 53	66 02	64 10	62 19	60 30		20
	30	80 41	78 55	77 08	75 32	73 35	71 43	70 00	68 14	66 28	64 42	62 56	61 12		30
	40	80 15	78 35	76 54	75 13	73 31	71 50	70 09	68 28	66 47	65 05	63 25	61 45		40
	50	79 47	78 12	76 36	75 01	73 24	71 48	70 11	68 35	66 58	65 22	63 46	62 11		50
3	00	79 18	77 48	76 17	74 45	73 14	71 42	70 10	68 38	67 06	65 33	64 01	62 29	3	00
	10	78 49	77 22	75 55	74 28	73 00	71 32	70 03	68 36	67 07	65 38	64 10	62 41		10
	20	78 18	76 54	75 31	74 08	72 43	71 19	69 55	68 29	67 05	65 39	64 14	62 49		20
	30	77 46	76 26	75 06	73 45	72 24	71 03	69 41	68 20	66 58	65 36	64 14	62 52		30
	40	77 13	75 57	74 39	73 21	72 03	70 44	69 26	68 07	66 48	65 29	64 09	62 50		40
	50	76 40	75 25	74 11	72 55	71 40	70 25	69 08	67 52	66 36	65 18	64 01	62 44		50
4	00	76 05	74 53	73 41	72 28	71 15	70 01	68 48	67 34	66 19	65 05	63 50	62 35	4	00
	10	75 30	74 20	73 09	71 58	70 48	69 36	68 24	67 13	66 00	64 48	63 36	62 23		10
	20	74 54	73 45	72 37	71 27	70 19	69 10	67 59	66 50	65 40	64 28	63 18	62 07		20
	30	74 16	73 10	72 03	70 55	69 48	68 40	67 32	66 24	65 16	64 07	62 58	61 49		30
	40	73 37	72 32	71 27	70 21	69 16	68 10	67 03	65 57	64 50	63 42	62 36	61 28		40
	50	72 57	71 54	70 50	69 46	68 42	67 38	66 32	65 27	64 22	63 16	62 10	61 05		50
5	00	72 16	71 14	70 12	69 09	68 06	67 03	65 59	64 55	63 51	62 47	61 43	60 38	5	00
	10	71 34	70 33	69 32	68 30	67 28	66 27	65 24	64 22	63 20	62 16	61 13	60 10		10
	20	70 51	69 51	68 51	67 50	66 49	65 49	64 47	63 46	62 45	61 42	60 41	59 39		20
	30	70 06	69 07	68 08	67 08	66 09	65 09	64 09	63 09	62 08	61 08	60 07	59 05		30
	40	69 21	68 21	67 23	66 25	65 26	64 27	63 29	62 29	61 29	60 29	59 30	58 30		40
	50	68 33	67 35	66 38	65 40	64 42	63 44	62 45	61 47	60 49	59 50	58 51	57 52		50
6	00	67 43	66 46	65 49	64 53	63 55	62 58	62 01	61 03	60 06	59 08	58 10	57 12	6	00
	10	66 52	65 55	64 59	64 03	63 07	62 11	61 14	60 17	59 21	58 23	57 26	56 29		10
	20	65 59	65 04	64 08	63 13	62 17	61 21	60 25	59 29	58 33	57 37	56 41	55 44		20
	30	65 04	64 09	63 14	62 19	61 24	60 30	59 35	58 39	57 44	56 48	55 52	54 57		30
	40	64 08	63 13	62 19	61 24	60 30	59 35	58 40	57 45	56 51	55 57	55 02	54 07		40
	50	63 09	62 14	61 21	60 27	59 33	58 39	57 45	56 51	55 57	55 03	54 09	53 14		50
7	00	62 08	61 14	60 20	59 27	58 34	57 41	56 47	55 54	55 00	54 07	53 13	52 20	7	00
	10	61 04	60 11	59 18	58 25	57 31	56 38	55 45	54 53	54 00	53 08	52 15	51 23		10
	20	59 57	59 05	58 12	57 20	56 27	55 35	54 43	53 51	53 00	52 08	51 16	50 22		20
	30	58 48	57 56	57 04	56 12	55 20	54 28	53 36	52 45	51 53	51 01	50 11	49 19		30
	40	57 36	56 44	55 53	55 02	54 10	53 18	52 27	51 36	50 45	49 54	49 04	48 14		40
	50	56 22	55 30	54 39	53 48	52 56	52 06	51 16	50 25	49 35	48 44	47 55	47 04		50
8	00	55 03	54 12	53 21	52 31	51 40	50 49	50 00	49 10	48 21	47 30	46 42	45 52	8	00
	10	53 41	52 51	52 01	51 11	50 20	49 30	48 41	47 52	47 03	46 14	45 25	44 38		10
	20	52 16	51 27	50 36	49 46	48 57	48 08	47 19	46 30	45 43	44 54	44 07	43 19		20
	30	50 47	49 57	49 07	48 18	47 29	46 41	45 53	45 05	44 18	43 31	42 44	41 57		30
	40	49 13	48 23	47 35	46 46	45 59	45 11	44 24	43 37	42 50	42 04	41 18	40 33		40
	50	47 35	46 46	45 58	45 10	44 23	43 36	42 50	42 04	41 18	40 33	39 48	39 03		50
9	00	45 51	45 04	44 17	43 29	42 43	41 57	41 12	40 27	39 42	38 59	38 15	37 31	9	00
	10	44 04	43 16	42 31	41 45	40 59	40 14	39 30	38 46	38 03	37 20	36 37	35 55		10
	20	42 11	41 25	40 40	39 55	39 11	38 27	37 44	37 01	36 19	35 38	34 57	34 16		20
	30	40 14	39 29	38 44	38 00	37 16	36 35	35 53	35 12	34 31	33 51	33 11	32 32		30
	40	38 10	37 26	36 43	36 00	35 19	34 38	33 58	33 18	32 39	32 00	31 22	30 44		40
	50	36 00	35 18	34 37	33 56	33 16	32 37	31 58	31 20	30 42	30 05	29 29	28 52		50
10	00	33 45	33 04	32 25	31 46	31 08	30 30	29 54	29 17	28 42	28 06	27 32	26 58	10	00
	10	31 24	30 45	30 08	29 31	28 54	28 19	27 45	27 10	26 37	26 03	25 30	24 59		10
	20	28 56	28 20	27 46	27 11	26 37	26 04	25 31	24 58	24 28	23 57	23 26	22 56		20
	30	26 25	25 51	25 17	24 46	24 14	23 43	23 14	22 43	22 15	21 45	21 17	20 50		30
	40	23 45	23 14	22 44	22 15	21 46	21 18	20 51	20 24	19 57	19 31	19 06	18 41		40
	50	21 01	20 33	20 07	19 40	19 13	18 48	18 24	18 00	17 36	17 13	16 50	16 28		50
11	00	18 12	17 47	17 24	17 00	16 37	16 16	15 54	15 33	15 12	14 51	14 32	14 13	11	00
	10	15 18	14 57	14 37	14 17	13 58	13 39	13 20	13 03	12 45	12 28	12 11	11 55		10
	20	12 20	12 02	11 46	11 29	11 14	10 58	10 44	10 29	10 15	10 01	9 48	9 35		20
	30	9 18	9 05	8 52	8 40	8 28	8 17	8 04	7 54	7 43	7 33	7 22	7 12		30
	40	6 13	6 05	5 57	5 48	5 40	5 32	5 25	5 17	5 10	5 03	4 56	4 49		40
	50	3 07	3 02	2 59	2 54	2 50	2 47	2 43	2 39	2 35	2 32	2 28	2 25		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 23°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 23°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	°	'	°	'	°	'	°	'	°	'	°	'	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	8 54	8 11	7 34	7 00	6 31	6 05	5 41	5 20	5 00	4 42	4 26	4 11		10
	20	17 19	15 58	14 48	13 45	12 49	11 59	11 13	10 31	9 54	9 20	8 47	8 18		20
	30	24 52	23 05	21 29	20 02	18 44	17 33	16 28	15 29	14 35	13 46	12 59	12 17		30
	40	31 27	29 21	27 27	25 43	24 08	22 42	21 21	20 08	19 00	17 58	16 59	16 05		40
	50	37 00	34 44	32 39	30 44	28 58	27 20	25 49	24 25	23 06	21 53	20 44	19 40		50
1	00	41 37	39 17	37 08	35 07	33 14	31 29	29 50	28 17	26 50	25 29	24 12	23 00	1	00
	10	45 26	43 08	40 57	38 53	36 57	35 08	33 23	31 46	30 14	28 45	27 23	26 05		10
	20	48 35	46 19	44 11	42 08	40 10	38 18	36 32	34 51	33 15	31 43	30 16	28 53		20
	30	51 11	49 00	46 54	44 53	42 56	41 04	39 17	37 34	35 57	34 22	32 53	31 26		30
	40	53 20	51 14	49 10	47 12	45 18	43 27	41 41	39 58	38 19	36 44	35 12	33 44		40
	50	55 05	53 04	51 06	49 11	47 19	45 30	43 45	42 04	40 25	38 49	37 16	35 47		50
2	00	56 33	54 37	52 42	50 51	49 02	47 17	45 34	43 52	42 15	40 40	39 07	37 37	2	00
	10	57 44	55 53	54 03	52 16	50 31	48 47	47 06	45 28	43 51	42 16	40 44	39 15		10
	20	58 42	56 56	55 10	53 26	51 45	50 04	48 25	46 49	45 14	43 41	42 10	40 42		20
	30	59 29	57 47	56 05	54 25	52 47	51 10	49 33	47 59	46 27	44 55	43 25	41 57		30
	40	60 05	58 29	56 51	55 15	53 39	52 05	50 31	48 59	47 28	45 59	44 31	43 04		40
	50	60 36	59 01	57 27	55 54	54 21	52 50	51 19	49 50	48 21	46 53	45 27	44 01		50
3	00	60 58	59 27	57 57	56 27	54 57	53 28	52 00	50 32	49 06	47 39	46 15	44 51	3	00
	10	61 14	59 46	58 18	56 52	55 25	53 58	52 32	51 07	49 43	48 19	46 56	45 34		10
	20	61 24	59 59	58 34	57 10	55 47	54 22	52 59	51 36	50 14	48 51	47 30	46 09		20
	30	61 29	60 07	58 45	57 24	56 02	54 41	53 19	51 58	50 38	49 17	47 57	46 38		30
	40	61 30	60 10	58 51	57 32	56 12	54 53	53 34	52 15	50 57	49 38	48 19	47 01		40
	50	61 27	60 10	58 53	57 35	56 18	55 01	53 44	52 27	51 10	49 53	48 36	47 20		50
4	00	61 20	60 05	58 50	57 35	56 19	55 04	53 49	52 34	51 19	50 04	48 49	47 34	4	00
	10	61 10	59 57	58 43	57 30	56 17	55 04	53 50	52 37	51 23	50 10	48 56	47 43		10
	20	60 57	59 45	58 33	57 22	56 11	54 59	53 47	52 36	51 23	50 11	48 59	47 48		20
	30	60 40	59 30	58 21	57 11	56 00	54 51	53 41	52 30	51 19	50 09	48 59	47 48		30
	40	60 21	59 12	58 04	56 57	55 48	54 39	53 30	52 22	51 13	50 03	48 54	47 45		40
	50	60 58	59 52	57 46	56 39	55 32	54 25	53 17	52 10	51 02	49 54	48 46	47 38		50
5	00	59 34	58 28	57 23	56 18	55 12	54 06	53 01	51 54	50 48	49 41	48 35	47 28	5	00
	10	59 07	58 03	56 59	55 55	54 50	53 45	52 41	51 36	50 31	49 26	48 21	47 15		10
	20	58 36	57 34	56 31	55 29	54 26	53 22	52 18	51 15	50 11	49 07	48 03	46 58		20
	30	58 05	57 03	56 01	55 00	53 57	52 55	51 53	50 51	49 48	48 45	47 42	46 39		30
	40	57 29	56 29	55 29	54 28	53 27	52 26	51 25	50 24	49 22	48 20	47 18	46 16		40
	50	56 53	55 53	54 54	53 54	52 54	51 55	50 55	49 54	48 53	47 53	46 52	45 51		50
6	00	56 13	55 15	54 17	53 19	52 19	51 20	50 21	49 22	48 22	47 22	46 22	45 23	6	00
	10	55 32	54 35	53 37	52 39	51 41	50 43	49 44	48 46	47 48	46 49	45 50	44 51		10
	20	54 48	53 51	52 55	51 58	51 00	50 03	49 06	48 09	47 12	46 13	45 16	44 17		20
	30	54 02	53 06	52 10	51 14	50 17	49 22	48 25	47 28	46 32	45 35	44 38	43 41		30
	40	53 12	52 17	51 22	50 27	49 31	48 36	47 40	46 46	45 50	44 55	43 57	43 02		40
	50	52 20	51 26	50 32	49 39	48 44	47 49	46 54	46 00	45 05	44 10	43 16	42 20		50
7	00	51 27	50 33	49 40	48 47	47 52	46 59	46 06	45 11	44 18	43 23	42 30	41 36	7	00
	10	50 30	49 38	48 45	47 52	46 58	46 06	45 13	44 21	43 28	42 34	41 41	40 49		10
	20	49 31	48 38	47 47	46 55	46 03	45 10	44 19	43 27	42 35	41 43	40 51	39 58		20
	30	48 28	47 37	46 46	45 55	45 04	44 12	43 22	42 30	41 40	40 49	39 57	39 06		30
	40	47 23	46 33	45 42	44 53	44 02	43 12	42 22	41 32	40 41	39 51	39 01	38 11		40
	50	46 15	45 25	44 36	43 47	42 58	42 08	41 19	40 30	39 41	38 51	38 03	37 14		50
8	00	45 03	44 15	43 26	42 38	41 49	41 01	40 13	39 25	38 37	37 49	37 01	36 13	8	00
	10	43 50	43 02	42 14	41 27	40 39	39 51	39 04	38 17	37 31	36 43	35 57	35 10		10
	20	42 33	41 46	40 58	40 12	39 26	38 39	37 53	37 07	36 22	35 35	34 50	34 04		20
	30	41 12	40 26	39 40	38 54	38 09	37 23	36 38	35 54	35 09	34 24	33 41	32 56		30
	40	39 48	39 03	38 18	37 33	36 49	36 05	35 21	34 38	33 54	33 10	32 28	31 45		40
	50	38 19	37 35	36 52	36 09	35 25	34 42	34 00	33 18	32 36	31 54	31 12	30 31		50
9	00	36 48	36 06	35 24	34 41	34 00	33 18	32 37	31 56	31 15	30 34	29 55	29 14	9	00
	10	35 13	34 32	33 51	33 10	32 30	31 50	31 10	30 31	29 52	29 12	28 34	27 55		10
	20	33 35	32 55	32 16	31 37	30 57	30 19	29 41	29 02	28 25	27 47	27 10	26 33		20
	30	31 53	31 15	30 36	29 59	29 21	28 44	28 08	27 32	26 57	26 19	25 44	25 09		30
	40	30 07	29 30	28 54	28 18	27 42	27 06	26 32	25 57	25 22	24 48	24 15	23 41		40
	50	28 18	27 42	27 07	26 33	25 59	25 26	24 53	24 21	23 47	23 16	22 44	22 12		50
10	00	26 24	25 51	25 19	24 47	24 14	23 42	23 12	22 40	22 10	21 39	21 10	20 41	10	00
	10	24 28	23 56	23 26	22 55	22 25	21 56	21 27	20 58	20 30	20 01	19 34	19 06		10
	20	22 27	21 58	21 30	21 01	20 34	20 06	19 40	19 13	18 47	18 21	17 55	17 30		20
	30	20 23	19 57	19 30	19 05	18 40	18 15	17 50	17 25	17 02	16 38	16 15	15 51		30
	40	18 16	17 52	17 28	17 06	16 42	16 19	15 57	15 36	15 14	14 53	14 31	14 10		40
	50	16 06	15 46	15 24	15 03	14 42	14 22	14 03	13 43	13 24	13 05	12 47	12 28		50
11	00	13 54	13 35	13 16	12 58	12 41	12 24	12 06	11 49	11 33	11 17	11 00	10 44	11	00
	10	11 39	11 23	11 08	10 53	10 38	10 23	10 08	9 54	9 40	9 26	9 13	8 59		10
	20	9 22	9 09	8 56	8 44	8 32	8 21	8 08	7 57	7 46	7 35	7 23	7 13		20
	30	7 02	6 53	6 44	6 34	6 25	6 16	6 08	5 59	5 51	5 42	5 33	5 26		30
	40	4 42	4 36	4 29	4 24	4 17	4 11	4 06	4 00	3 54	3 48	3 43	3 37		40
	50	2 21	2 18	2 15	2 12	2 09	2 06	2 03	2 00	1 58	1 55	1 52	1 49		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 23°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 23°.		
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.			
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	3 57	3 44	3 32	3 20	3 10	3 00	2 51	2 42	2 34	2 26	2 18	2 11		10		
	20	7 51	7 24	7 01	6 39	6 19	5 58	5 40	5 23	5 06	4 51	4 36	4 21		20		
	30	11 37	11 00	10 25	9 52	9 22	8 53	8 27	8 01	7 37	7 14	6 52	6 31		30		
	40	15 14	14 27	13 42	13 01	12 21	11 43	11 08	10 35	10 04	9 33	9 04	8 37		40		
	50	18 39	17 43	16 50	16 00	15 12	14 26	13 44	13 04	12 25	11 48	11 13	10 40		50		
1	00	21 52	20 47	19 47	18 49	17 55	17 02	16 13	15 26	14 41	13 59	13 18	12 38	1	00		
	10	24 50	23 40	22 33	21 29	20 28	19 30	18 35	17 43	16 52	16 04	15 17	14 32		10		
	20	27 34	26 19	25 07	23 57	22 52	21 49	20 48	19 51	18 56	18 02	17 11	16 22		20		
	30	30 03	28 44	27 29	26 15	25 06	23 58	22 54	21 52	20 53	19 55	18 59	18 06		30		
	40	32 19	30 57	29 39	28 22	27 09	25 58	24 51	23 45	22 42	21 40	20 42	19 44		40		
	50	34 21	32 57	31 36	30 17	29 02	27 49	26 38	25 30	24 24	23 20	22 17	21 17		50		
2	00	36 11	34 46	33 23	32 04	30 46	29 31	28 18	27 08	25 59	24 52	23 47	22 44	2	00		
	10	37 48	36 23	34 59	33 39	32 21	31 04	29 49	28 37	27 26	26 17	25 10	24 05		10		
	20	39 17	37 50	36 26	35 04	33 45	32 28	31 12	29 58	28 46	27 36	26 27	25 20		20		
	30	40 37	39 07	37 43	36 22	35 02	33 44	32 28	31 13	29 59	28 48	27 38	26 29		30		
	40	41 39	40 15	38 52	37 31	36 11	34 52	33 36	32 21	31 06	29 54	28 43	27 32		40		
	50	42 38	41 14	39 52	38 31	37 12	35 54	34 37	33 21	32 07	30 53	29 41	28 30		50		
3	00	43 27	42 06	40 45	39 24	38 06	36 48	35 31	34 16	33 01	31 48	30 35	29 23	3	00		
	10	44 12	42 51	41 31	40 11	38 53	37 36	36 19	35 04	33 50	32 35	31 22	30 11		10		
	20	44 49	43 29	42 10	40 51	39 34	38 17	37 01	35 46	34 32	33 18	32 05	30 53		20		
	30	45 19	44 01	42 43	41 25	40 09	38 53	37 38	36 23	35 09	33 56	32 43	31 31		30		
	40	45 45	44 28	43 11	41 54	40 39	39 24	38 09	36 55	35 41	34 29	33 16	32 04		40		
	50	46 05	44 49	43 33	42 18	41 04	39 49	38 35	37 21	36 09	34 56	33 44	32 32		50		
4	00	46 20	45 05	43 51	42 37	41 23	40 10	38 57	37 44	36 32	35 19	34 07	32 56	4	00		
	10	46 30	45 17	44 04	42 50	41 38	40 26	39 14	38 02	36 50	35 38	34 28	33 17		10		
	20	46 36	45 24	44 12	43 00	41 49	40 38	39 26	38 15	37 04	35 54	34 43	33 33		20		
	30	46 37	45 27	44 17	43 06	41 56	40 45	39 35	38 25	37 15	36 05	34 55	33 45		30		
	40	46 36	45 27	44 17	43 08	41 58	40 49	39 40	38 30	37 21	36 13	35 04	33 54		40		
	50	46 30	45 22	44 15	43 06	41 58	40 49	39 40	38 32	37 25	36 16	35 08	33 59		50		
5	00	46 22	45 15	44 07	43 00	41 54	40 46	39 39	38 31	37 24	36 17	35 09	34 01	5	00		
	10	46 10	45 04	43 58	42 51	41 45	40 39	39 33	38 27	37 20	36 13	35 07	34 00		10		
	20	45 54	44 49	43 45	42 39	41 34	40 19	39 24	38 18	37 13	36 08	35 02	33 55		20		
	30	45 35	44 32	43 28	42 24	41 21	40 16	39 11	38 07	37 02	35 58	34 53	33 48		30		
	40	45 13	44 11	43 08	42 05	41 03	40 00	38 57	37 53	36 49	35 46	34 42	33 38		40		
	50	44 50	43 48	42 46	41 44	40 42	39 41	38 38	37 35	36 33	35 30	34 27	33 24		50		
6	00	44 22	43 22	42 21	41 20	40 19	39 18	38 17	37 15	36 14	35 12	34 10	33 08	6	00		
	10	43 52	42 53	41 53	40 53	39 54	38 53	37 53	36 53	35 52	34 51	33 50	32 49		10		
	20	43 20	42 21	41 22	40 23	39 25	38 26	37 26	36 27	35 28	34 28	33 28	32 28		20		
	30	42 44	41 47	40 49	39 51	38 54	37 56	36 58	35 58	35 00	34 02	33 03	32 04		30		
	40	42 06	41 09	40 12	39 16	38 19	37 22	36 26	35 28	34 30	33 32	32 35	31 37		40		
	50	41 24	40 29	39 34	38 38	37 42	36 47	35 50									

AZIMUTH OR TRUE BEARING.

LATITUDE 23°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 23°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0
	10	2 05	1 58	1 52	1 46	1 40	1 35	1 29	1 25	1 19	1 14	1 10	10
	20	4 08	3 56	3 44	3 31	3 20	3 09	2 58	2 49	2 38	2 29	2 20	20
	30	6 11	5 52	5 33	5 16	4 59	4 43	4 26	4 11	3 57	3 43	3 29	30
	40	8 10	7 45	7 21	6 58	6 35	6 15	5 54	5 34	5 14	4 55	4 37	40
	50	10 07	9 36	9 07	8 38	8 11	7 45	7 19	6 55	6 31	6 07	5 45	50
1	00	12 01	11 25	10 50	10 16	9 43	9 12	8 42	8 13	7 45	7 18	6 51	1
	10	13 50	13 09	12 28	11 51	11 14	10 38	10 03	9 30	8 58	8 26	7 56	10
	20	15 35	14 49	14 05	13 21	12 41	12 02	11 22	10 45	10 09	9 33	9 00	20
	30	17 14	16 25	15 36	14 49	14 05	13 21	12 39	11 57	11 17	10 39	10 00	30
	40	18 50	17 56	17 03	16 14	15 25	14 38	13 51	13 07	12 23	11 41	11 00	40
	50	20 19	19 22	18 26	17 33	16 41	15 51	15 01	14 13	13 27	12 41	11 57	50
2	00	21 43	20 43	19 45	18 48	17 54	17 00	16 07	15 17	14 28	13 38	12 51	2
	10	23 01	21 59	20 58	19 59	19 02	18 06	17 11	16 17	15 25	14 34	13 44	10
	20	24 14	23 10	22 07	21 06	20 06	19 08	18 10	17 14	16 19	15 25	14 33	20
	30	25 21	24 16	23 11	22 08	21 07	20 07	19 06	18 08	17 12	16 15	15 20	30
	40	26 24	25 17	24 11	23 05	22 03	21 01	19 59	18 59	18 00	17 01	16 05	40
	50	27 21	26 13	25 04	23 58	22 54	21 51	20 47	19 46	18 45	17 45	16 46	50
3	00	28 13	27 04	25 55	24 48	23 42	22 37	21 32	20 29	19 27	18 26	17 26	3
	10	29 00	27 50	26 41	25 32	24 26	23 19	22 14	21 10	20 06	19 03	18 01	10
	20	29 42	28 32	27 22	26 13	25 06	23 59	22 52	21 46	20 42	19 38	18 35	20
	30	30 19	29 09	27 59	26 49	25 42	24 34	23 26	22 20	21 15	20 10	19 05	30
	40	30 53	29 42	28 31	27 22	26 14	25 06	23 57	22 51	21 44	20 38	19 34	40
	50	31 22	30 11	29 00	27 50	26 41	25 34	24 25	23 18	22 12	21 04	19 59	50
4	00	31 46	30 36	29 25	28 15	27 07	25 58	24 49	23 41	22 35	21 28	20 21	4
	10	32 06	30 57	29 46	28 37	27 28	26 19	25 10	24 03	22 56	21 47	20 41	10
	20	32 23	31 13	30 03	28 54	27 46	26 37	25 28	24 20	23 14	22 05	20 58	20
	30	32 35	31 27	30 17	29 08	28 00	26 52	25 43	24 35	23 28	22 20	21 13	30
	40	32 45	31 37	30 28	29 19	28 11	27 03	25 55	24 47	23 39	22 32	21 25	40
	50	32 52	31 44	30 35	29 27	28 19	27 11	26 03	24 56	23 49	22 41	21 34	50
5	00	32 54	31 47	30 38	29 31	28 25	27 18	26 09	25 03	23 55	22 48	21 40	5
	10	32 53	31 47	30 39	29 33	28 27	27 20	26 12	25 06	24 00	22 53	21 46	10
	20	32 50	31 44	30 38	29 32	28 26	27 19	26 13	25 07	24 01	22 54	21 49	20
	30	32 43	31 39	30 33	29 27	28 22	27 16	26 11	25 06	24 00	22 54	21 48	30
	40	32 33	31 29	30 24	29 20	28 16	27 12	26 06	25 01	23 56	22 51	21 46	40
	50	32 22	31 18	30 14	29 10	28 07	27 03	25 58	24 54	23 50	22 46	21 41	50
6	00	32 06	31 04	30 00	28 58	27 55	26 52	25 48	24 45	23 42	22 38	21 34	6
	10	31 47	30 47	29 45	28 43	27 41	26 39	25 37	24 34	23 32	22 28	21 25	10
	20	31 28	30 28	29 26	28 25	27 24	26 24	25 22	24 20	23 18	22 16	21 14	20
	30	31 04	30 05	29 05	28 05	27 05	26 05	25 05	24 04	23 04	22 03	21 01	30
	40	30 39	29 40	28 42	27 42	26 44	25 45	24 46	23 46	22 46	21 46	20 46	40
	50	30 11	29 14	28 16	27 15	26 20	25 23	24 25	23 26	22 27	21 27	20 29	50
7	00	29 40	28 44	27 47	26 51	25 54	24 58	24 01	23 04	22 06	21 08	20 10	7
	10	29 08	28 13	27 17	26 21	25 27	24 31	23 35	22 38	21 42	20 45	19 49	10
	20	28 33	27 39	26 45	25 50	24 56	24 02	23 07	22 12	21 17	20 21	19 26	20
	30	27 55	27 02	26 09	25 17	24 24	23 31	22 37	21 43	20 51	19 56	19 01	30
	40	27 16	26 24	25 33	24 41	23 49	22 58	22 06	21 14	20 21	19 28	18 36	40
	50	26 34	25 44	24 53	24 03	23 13	22 23	21 32	20 42	19 50	18 59	18 08	50
8	00	25 49	25 02	24 12	23 23	22 35	21 45	20 57	20 08	19 18	18 28	17 38	8
	10	25 03	24 16	23 29	22 41	21 55	21 07	20 20	19 32	18 44	17 55	17 07	10
	20	24 15	23 30	22 43	21 58	21 13	20 27	19 41	18 54	18 08	17 21	16 34	20
	30	23 25	22 41	21 57	21 13	20 29	19 44	19 00	18 14	17 30	16 45	15 59	30
	40	22 32	21 50	21 08	20 25	19 43	19 00	18 17	17 34	16 51	16 07	15 24	40
	50	21 38	20 58	20 17	19 36	18 55	18 14	17 33	16 52	16 11	15 28	14 47	50
9	00	20 43	20 04	19 24	18 45	18 06	17 27	16 47	16 07	15 29	14 48	14 08	9
	10	19 45	19 07	18 30	17 52	17 15	16 38	16 00	15 23	14 45	14 07	13 29	10
	20	18 45	18 06	17 33	16 58	16 23	15 47	15 12	14 36	14 01	13 24	12 49	20
	30	17 44	17 11	16 36	16 03	15 30	14 55	14 21	13 48	13 14	12 40	12 06	30
	40	16 41	16 09	15 38	15 06	14 34	14 03	13 31	12 59	12 27	11 55	11 23	40
	50	15 37	15 06	14 37	14 07	13 37	13 08	12 38	12 08	11 38	11 08	10 36	50
10	00	14 30	14 03	13 35	13 07	12 40	12 12	11 45	11 17	10 50	10 21	9 54	10
	10	13 23	12 57	12 32	12 06	11 41	11 15	10 50	10 24	9 59	9 33	9 07	10
	20	12 14	11 51	11 27	11 04	10 40	10 18	9 54	9 31	9 07	8 43	8 21	20
	30	11 05	10 43	10 22	10 01	9 40	9 18	8 58	8 36	8 15	7 54	7 33	30
	40	9 54	9 35	9 15	8 56	8 38	8 19	7 59	7 41	7 22	7 03	6 44	40
	50	8 41	8 25	8 08	7 51	7 35	7 18	7 02	6 45	6 29	6 11	5 55	50
11	00	7 28	7 14	6 59	6 46	6 31	6 17	6 03	5 49	5 34	5 20	5 05	11
	10	6 16	6 03	5 51	5 39	5 27	5 15	5 03	4 51	4 39	4 27	4 15	10
	20	5 01	4 51	4 42	4 31	4 22	4 12	4 03	3 54	3 44	3 34	3 25	20
	30	3 46	3 38	3 31	3 25	3 17	3 10	3 02	2 56	2 48	2 41	2 33	30
	40	2 31	2 26	2 21	2 17	2 12	2 07	2 02	1 57	1 52	1 48	1 43	40
	50	1 15	1 13	1 11	1 08	1 06	1 04	1 01	0 58	0 56	0 54	0 52	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 24°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 24°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
0	00	.....	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	89 29	65 46	48 02	36 26	28 47	23 33	19 48	17 00	14 50	13 07	11 44	10 32		10
	20	88 59	76 35	65 09	55 19	47 15	40 44	35 30	31 14	27 44	24 52	22 27	20 24		20
	30	88 28	80 08	72 03	64 31	57 43	51 41	46 26	41 52	37 54	34 29	31 30	28 54		30
	40	87 58	81 40	75 28	69 31	63 52	58 39	53 51	49 30	45 34	42 02	38 51	35 59		40
	50	87 27	82 24	77 23	72 28	67 44	63 13	58 57	54 57	51 15	47 49	44 39	41 45		50
1	00	86 56	82 43	78 30	74 20	70 16	66 19	62 32	58 55	55 29	52 15	49 12	46 21	1	00
	10	86 25	82 47	79 09	75 32	71 59	68 30	65 07	61 50	58 41	55 40	52 48	50 04		10
	20	85 54	82 42	79 30	76 19	73 10	70 03	67 00	64 00	61 07	58 20	55 38	53 02		20
	30	85 22	82 31	79 40	76 45	73 58	71 09	68 23	65 40	62 59	60 24	57 51	55 25		30
	40	84 51	82 16	79 41	77 06	74 31	71 57	69 25	66 54	64 26	62 01	59 38	57 19		40
	50	84 19	81 57	79 36	77 13	74 51	72 30	70 09	67 50	65 32	63 16	61 02	58 52		50
2	00	83 47	81 37	79 25	77 14	75 03	72 52	70 41	68 32	66 23	64 16	62 10	60 07	2	00
	10	83 14	81 13	79 12	77 10	75 08	73 05	71 03	69 02	67 01	65 01	63 03	61 06		10
	20	82 42	80 48	78 55	77 01	75 07	73 12	71 18	69 23	67 30	65 36	63 45	61 53		20
	30	82 08	80 22	78 35	76 48	75 01	73 13	71 25	69 37	67 49	66 02	64 15	62 30		30
	40	81 35	79 54	78 13	76 32	74 51	73 08	71 26	69 44	68 02	66 20	64 38	62 58		40
	50	81 01	79 25	77 50	76 14	74 37	73 00	71 24	69 46	68 09	66 31	64 55	63 18		50
3	00	80 26	78 55	77 24	75 53	74 21	72 48	71 16	69 43	68 10	66 37	65 04	63 32	3	00
	10	79 51	78 25	76 58	75 30	74 02	72 34	71 05	69 37	68 07	66 38	65 09	63 40		10
	20	79 16	77 52	76 29	75 05	73 40	72 16	70 51	69 26	68 00	66 35	65 09	63 44		20
	30	78 39	77 20	76 00	74 39	73 18	71 56	70 34	69 12	67 50	66 27	65 05	63 42		30
	40	78 03	76 46	75 28	74 11	72 52	71 34	70 15	68 56	67 36	66 16	64 57	63 37		40
	50	77 25	76 11	74 56	73 40	72 25	71 09	69 53	68 37	67 19	66 03	64 45	63 28		50
4	00	76 47	75 35	74 22	73 09	71 56	70 43	69 29	68 15	67 00	65 46	64 30	63 16	4	00
	10	76 08	74 58	73 48	72 37	71 26	70 14	69 03	67 51	66 39	65 26	64 13	63 00		10
	20	75 28	74 20	73 12	72 04	70 54	69 45	68 35	67 25	66 15	65 04	63 53	62 42		20
	30	74 48	73 42	72 35	71 28	70 20	69 13	68 05	66 56	65 48	64 39	63 30	62 21		30
	40	74 06	73 02	71 56	70 51	69 46	68 39	67 33	66 26	65 20	64 12	63 05	61 58		40
	50	73 24	72 20	71 17	70 13	69 08	68 04	66 59	65 54	64 49	63 43	62 38	61 31		50
5	00	72 40	71 38	70 36	69 33	68 30	67 27	66 23	65 19	64 16	63 12	62 07	61 03	5	00
	10	71 55	70 55	69 54	68 52	67 50	66 48	65 46	64 44	63 41	62 38	61 35	60 32		10
	20	71 09	70 10	69 09	68 09	67 09	66 08	65 07	64 06	63 04	62 03	61 01	59 59		20
	30	70 22	69 23	68 25	67 25	66 26	65 26	64 26	63 26	62 25	61 25	60 24	59 24		30
	40	69 33	68 36	67 38	66 39	65 40	64 42	63 43	62 44	61 44	60 45	59 46	58 46		40
	50	68 44	67 47	66 49	65 52	64 54	63 56	62 58	62 00	61 02	60 03	59 04	58 06		50
6	00	67 52	66 56	65 59	65 02	64 06	63 09	62 11	61 14	60 17	59 19	58 22	57 24	6	00
	10	66 59	66 03	65 08	64 12	63 15	62 19	61 23	60 26	59 29	58 33	57 36	56 39		10
	20	66 04	65 09	64 13	63 19	62 23	61 28	60 32	59 36	58 41	57 44	56 49	55 52		20
	30	65 07	64 13	63 18	62 24	61 29	60 34	59 39	58 44	57 49	56 54	55 58	55 04		30
	40	64 08	63 14	62 20	61 26	60 32	59 38	58 44	57 50	56 55	56 01	55 06	54 12		40
	50	63 08	62 15	61 21	60 27	59 34	58 40	57 46	56 53	55 59	55 05	54 12	53 18		50
7	00	62 04	61 12	60 18	59 25	58 33	57 39	56 46	55 54	55 01	54 08	53 15	52 22	7	00
	10	60 59	60 06	59 13	58 21	57 29	56 36	55 44	54 52	53 59	53 07	52 14	51 23		10
	20	59 51	58 59	58 07	57 14	56 23	55 31	54 39	53 47	52 55	52 04	51 13	50 21		20
	30	58 40	57 49	56 57	56 05	55 14	54 23	53 31	52 40	51 49	50 58	50 07	49 17		30
	40	57 27	56 35	55 44	54 53	54 02	53 11	52 21	51 30	50 40	49 50	48 59	48 09		40
	50	56 10	55 19	54 29	53 37	52 48	51 57	51 08	50 17	49 27	48 38	47 48	47 00		50
8	00	54 50	54 00	53 09	52 19	51 29	50 40	49 50	49 01	48 12	47 23	46 34	45 47	8	00
	10	53 27	52 37	51 47	50 57	50 09	49 19	48 30	47 42	46 54	46 06	45 17	44 31		10
	20	52 00	51 11	50 22	49 32	48 44	47 56	47 07	46 20	45 32	44 44	43 58	43 11		20
	30	50 29	49 41	48 51	48 03	47 15	46 27	45 40	44 53	44 06	43 20	42 34	41 48		30
	40	48 54	48 05	47 18	46 30	45 43	44 56	44 10	43 24	42 37	41 52	41 06	40 23		40
	50	47 15	46 27	45 40	44 53	44 07	43 21	42 35	41 50	41 04	40 21	39 36	38 53		50
9	00	45 31	44 44	43 58	43 12	42 26	41 42	40 56	40 12	39 28	38 45	38 02	37 19	9	00
	10	43 43	42 57	42 11	41 26	40 41	39 58	39 14	38 31	37 48	37 07	36 24	35 43		10
	20	41 50	41 04	40 20	39 36	38 52	38 10	37 28	36 46	36 04	35 23	34 42	34 03		20
	30	39 51	39 07	38 24	37 41	36 59	36 17	35 36	34 56	34 16	33 37	32 58	32 20		30
	40	37 47	37 05	36 22	35 42	35 00	34 20	33 41	33 02	32 23	31 45	31 08	30 32		40
	50	35 38	34 56	34 16	33 37	32 57	32 19	31 41	31 04	30 27	29 50	29 15	28 41		50
10	00	33 23	32 43	32 05	31 27	30 49	30 13	29 37	29 02	28 26	27 52	27 18	26 46	10	00
	10	31 02	30 25	29 48	29 12	28 36	28 02	27 29	26 55	26 22	25 50	25 17	24 46		10
	20	28 36	28 01	27 26	26 53	26 19	25 47	25 15	24 44	24 14	23 43	23 13	22 45		20
	30	26 04	25 31	24 59	24 28	23 57	23 28	22 58	22 29	22 01	21 33	21 06	20 39		30
	40	23 26	22 56	22 27	21 58	21 30	21 04	20 36	20 10	19 44	19 19	18 55	18 30		40
	50	20 44	20 17	19 51	19 25	18 59	18 35	18 11	17 48	17 25	17 03	16 40	16 19		50
11	00	17 56	17 33	17 09	16 47	16 24	16 04	15 42	15 22	15 02	14 43	14 23	14 04	11	00
	10	15 04	14 44	14 25	14 05	13 46	13 29	13 11	12 53	12 36	12 19	12 03	11 47		10
	20	12 08	11 52	11 36	11 20	11 05	10 50	10 36	10 22	10 08	9 55	9 41	9 28		20
	30	9 09	8 57	8 45	8 32	8 21	8 10	7 59	7 49	7 38	7 28	7 18	7 08		30
	40	6 08	5 59	5 51	5 43	5 35	5 28	5 20	5 13	5 06	4 59	4 53	4 46		40
	50	3 04	3 00	2 55	2 52	2 48	2 44	2 41	2 37	2 32	2 30	2 27	2 24		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 24°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 24°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°		Hour Angle.		
h. m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h. m.	o /	h. m.	
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
0 10	9 37	8 48	8 05	7 27	6 54	6 25	5 59	5 35	5 14	4 55	4 37	4 22	4 08	0 10	8 48	0 10	
0 20	18 38	17 06	15 46	14 36	13 34	12 37	11 47	11 02	10 21	9 44	9 09	8 38	8 08	0 20	17 06	0 20	
0 30	26 37	24 36	22 48	21 12	19 46	18 28	17 18	16 13	15 14	14 21	13 31	12 46	12 06	0 30	24 36	0 30	
0 40	33 25	31 06	29 01	27 07	25 23	23 49	22 22	21 03	19 49	18 42	17 39	16 42	15 50	0 40	31 06	0 40	
0 50	39 04	36 37	34 22	32 17	30 22	28 36	26 58	25 27	24 02	22 44	21 31	20 23	19 19	0 50	36 37	0 50	
1 00	43 42	41 12	38 54	36 44	34 42	32 50	31 04	29 25	27 53	26 26	25 05	23 48	22 34	1 00	41 12	1 00	
1 10	47 28	45 01	42 42	40 32	38 28	36 30	34 41	32 57	31 19	29 47	28 20	26 56	25 42	1 10	45 01	1 10	
1 20	50 32	48 09	45 53	43 43	41 40	39 42	37 50	36 04	34 22	32 46	31 15	29 47	28 20	1 20	48 09	1 20	
1 30	53 02	50 45	48 33	46 26	44 23	42 27	40 35	38 48	37 04	35 27	33 52	32 22	30 52	1 30	50 45	1 30	
1 40	55 04	52 53	50 46	48 43	46 43	44 48	42 58	41 11	39 27	37 48	36 12	34 40	33 08	1 40	52 53	1 40	
1 50	56 44	54 39	52 37	50 37	48 41	46 49	45 00	43 14	41 31	39 53	38 17	36 43	35 08	1 50	54 39	1 50	
2 00	58 05	56 05	54 08	52 14	50 21	48 32	46 46	45 01	43 20	41 42	40 06	38 34	37 02	2 00	56 05	2 00	
2 10	59 10	57 16	55 24	53 34	51 45	49 59	48 15	46 33	44 54	43 17	41 42	40 10	38 34	2 10	57 16	2 10	
2 20	60 03	58 14	56 27	54 40	52 55	51 13	49 32	47 53	46 15	44 39	43 07	41 35	40 02	2 20	58 14	2 20	
2 30	60 45	59 00	57 18	55 35	53 54	52 15	50 37	49 00	47 24	45 51	44 20	42 49	41 16	2 30	59 00	2 30	
2 40	61 17	59 37	57 58	56 20	54 43	53 06	51 31	49 57	48 24	46 53	45 23	43 54	42 20	2 40	59 37	2 40	
2 50	61 41	60 06	58 31	56 56	55 22	53 49	52 17	50 45	49 15	47 46	46 17	44 49	43 14	2 50	60 06	2 50	
3 00	61 59	60 27	58 55	57 24	55 53	54 23	52 53	51 24	49 56	48 29	47 03	45 36	44 02	3 00	60 27	3 00	
3 10	62 11	60 42	59 14	57 46	56 18	54 50	53 24	51 57	50 31	49 06	47 41	46 17	44 42	3 10	60 42	3 10	
3 20	62 17	60 52	59 27	58 02	56 36	55 11	53 47	52 22	50 59	49 36	48 13	46 51	45 16	3 20	60 52	3 20	
3 30	62 19	60 57	59 34	58 11	56 49	55 26	54 04	52 42	51 20	50 00	48 38	47 17	45 42	3 30	60 57	3 30	
3 40	62 17	60 56	59 37	58 17	56 56	55 36	54 16	52 56	51 37	50 18	48 59	47 39	46 02	3 40	60 56	3 40	
3 50	62 10	60 53	59 35	58 17	56 59	55 41	54 24	53 06	51 48	50 31	49 13	47 56	46 20	3 50	60 53	3 50	
4 00	62 00	60 45	59 30	58 14	56 58	55 42	54 26	53 11	51 55	50 39	49 23	48 08	46 42	4 00	60 45	4 00	
4 10	61 47	60 34	59 20	58 07	56 53	55 38	54 25	53 10	51 56	50 43	49 28	48 14	46 40	4 10	60 34	4 10	
4 20	61 30	60 19	59 08	57 56	56 44	55 32	54 20	53 07	51 55	50 43	49 30	48 17	46 44	4 20	60 19	4 20	
4 30	61 12	60 01	58 52	57 42	56 32	55 21	54 10	53 00	51 49	50 38	49 27	48 16	46 45	4 30	60 01	4 30	
4 40	60 49	59 41	58 33	57 25	56 16	55 07	53 58	52 49	51 40	50 30	49 21	48 11	46 42	4 40	59 41	4 40	
4 50	60 25	59 18	58 12	57 05	55 58	54 50	53 43	52 35	51 27	50 19	49 11	48 03	46 36	4 50	59 18	4 50	
5 00	59 58	58 53	57 48	56 42	55 37	54 30	53 24	52 18	51 11	50 05	48 58	47 51	46 36	5 00	58 53	5 00	
5 10	59 28	58 24	57 21	56 16	55 13	54 08	53 03	51 58	50 52	49 47	48 41	47 36	46 20	5 10	58 24	5 10	
5 20	58 57	57 54	56 52	55 49	54 45	53 42	52 38	51 35	50 31	49 26	48 22	47 18	46 02	5 20	57 54	5 20	
5 30	58 22	57 21	56 20	55 18	54 16	53 14	52 11	51 08	50 06	49 03	48 00	46 56	45 42	5 30	57 21	5 30	
5 40	57 46	56 45	55 45	54 44	53 44	52 42	51 41	50 40	49 38	48 36	47 34	46 32	45 18	5 40	56 45	5 40	
5 50	57 07	56 07	55 08	54 09	53 09	52 09	51 08	50 08	49 08	48 08	47 06	46 05	45 05	5 50	56 07	5 50	
6 00	56 25	55 27	54 30	53 31	52 32	51 33	50 34	49 34	48 35	47 36	46 35	45 35	44 35	6 00	55 27	6 00	
6 10	55 42	54 45	53 48	52 50	51 52	50 54	49 56	48 57	47 59	47 01	46 02	45 02	44 02	6 10	54 45	6 10	
6 20	54 56	54 00	53 04	52 07	51 10	50 13	49 16	48 18	47 21	46 24	45 26	44 28	43 28	6 20	54 00	6 20	
6 30	54 07	53 13	52 18	51 21	50 26	49 29	48 33	47 36	46 40	45 44	44 46	43 50	42 50	6 30	53 13	6 30	
6 40	53 17	52 22	51 28	50 33	49 38	48 43	47 47	46 52	45 57	45 01	44 05	43 09	42 09	6 40	52 22	6 40	
6 50	52 24	51 30	50 36	49 43	48 49	47 54	46 59	46 05	45 10	44 16	43 21	42 26	41 26	6 50	51 30	6 50	
7 00	51 29	50 36	49 42	48 49	47 56	47 02	46 09	45 16	44 22	43 29	42 35	41 40	40 40	7 00	50 36	7 00	
7 10	50 30	49 38	48 46	47 54	47 01	46 09	45 16	44 24	43 31	42 39	41 46	40 52	40 00	7 10	49 38	7 10	
7 20	49 29	48 38	47 47	46 55	46 04	45 12	44 21	43 29	42 37	41 45	40 53	40 01	39 08	7 20	48 38	7 20	
7 30	48 25	47 35	46 44	45 54	45 03	44 12	43 22	42 31	41 41	40 50	39 59	39 08	38 12	7 30	47 35	7 30	
7 40	47 19	46 29	45 40	44 50	44 00	43 11	42 20	41 31	40 41	39 52	39 02	38 12	37 14	7 40	46 29	7 40	
7 50	46 11	45 21	44 32	43 44	42 55	42 06	41 17	40 28	39 39	38 51	38 02	37 14	36 14	7 50	45 21	7 50	
8 00	44 58	44 10	43 21	42 33	41 45	40 57	40 10	39 22	38 34	37 48	36 59	36 12	35 09	8 00	44 10	8 00	
8 10	43 43	42 56	42 08	41 21	40 34	39 47	39 00	38 14	37 28	36 42	35 55	35 09	34 02	8 10	42 56	8 10	
8 20	42 24	41 37	40 52	40 06	39 20	38 34	37 48	37 03	36 18	35 33	34 47	34 02	33 02	8 20	41 37	8 20	
8 30	41 03	40 17	39 32	38 47	38 02	37 18	36 33	35 48	35 05	34 21	33 37	32 53	31 41	8 30	40 17	8 30	
8 40	39 38	38 53	38 09	37 25	36 41	35 59	35 15	34 32	33 49	33 07	32 23	31 41	30 27	8 40	38 53	8 40	
8 50	38 10	37 25	36 43	36 01	35 18	34 35	33 53	33 12	32 31	31 50	31 08	30 27	29 02	8 50	37 25	8 50	
9 00	36 37	35 55	35 14	34 32	33 51	33 10	32 30	31 49	31 09	30 29	29 49	29 09	28 09	9 00	35 55	9 00	
9 10	35 02	34 21	33 41	33 01	32 22	31 42	31 02	30 24	29 45	29 07	28 27	27 50	26 50	9 10	34 21	9 10	
9 20	33 23	32 44	32 05	31 27	30 49	30 10	29 33	28 55	28 18	27 42	27 04	26 27	25 02	9 20	32 44	9 20	
9 30	31 40	31 03	30 26	29 49	29 13	28 36	28 00	27 23	26 48	26 13	25 38	25 03	24 02	9 30	31 03	9 30	
9 40	29 54	29 19	28 43	28 07	27 33	26 58	26 23	25 50	25 15	24 43	24 09	23 36	22 06	9 40	29 19	9 40	
9 50	28 05	27 30	26 58	26 24	25 51	25 18	24 45	24 13	23 40	23 10	22 38	22 06	21 06	9 50	27 30	9 50	
10 00	26 12	25 40	25 08	24 36	24 05	23 34	23 04	22 33	22 03	21 33	21 04	20 35	19 05	10 00	25 40	10 00	
10 10	24 15	23 46	23 15	22 45	22 16	21 48	21 19	20 51	20 23	19 55	19 27	19 00	17 25	10 10	23 46	10 10	
10 20	22 16	21 48	21 20	20 52	20 25	19 58	19 32	19 06	18 41	18 15	17 50	17 25	16 00	10 20	21 48	10 20	
10 30	20 12	19 47	19 22	18 56	18 32	18 07	17 43	17 19	16 55	16 32	16 09	15 46	14 02	10 30	19 47	10 30	
10 40	18 06	17 43	17 20	16 57	16 34	16 13	15 51	15 29	15 08	14 47	14 26	14 06	12 24	10 40	17 43	10 40	
10 50	15 57	15 37	15 16	14 56	14 36	14 16	13 57	13 38	13 19	13 01	12 42	12 24	11 00	10 50	15 37	10 50	
11 00	13 45	13 28	13 10	12 53	12 35	12 18	12 02	11 44	11 28	11 12	10 57	10 40	9 00	11 00	13 28	11 00	
11 10	11 31	11 17	11 01	10 46	10 32	10 18	10 04	9 50	9 36	9 23	9 09	8 56	7 10	11 10	11 17	11 10	
11 20	9 16	9 03	8 51	8 40	8 28	8 16	8 05	7 54	7								

AZIMUTH OR TRUE BEARING.

LATITUDE 24°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 24°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	4 06	3 52	3 40	3 28	3 16	3 06	2 56	2 46	2 38	2 30	2 22	2 15		10
	20	8 09	7 42	7 16	6 52	6 31	6 10	5 50	5 32	5 15	4 58	4 43	4 28		20
	30	12 03	11 24	10 47	10 12	9 40	9 10	8 41	8 14	7 48	7 24	7 02	6 40		30
	40	15 47	14 57	14 09	13 26	12 44	12 05	11 27	10 53	10 19	9 47	9 18	8 49		40
	50	19 19	18 19	17 23	16 30	15 40	14 52	14 07	13 25	12 45	12 06	11 29	10 55		50
1	00	22 36	21 29	20 24	19 23	18 26	17 32	16 40	15 51	15 04	14 19	13 36	12 55	1	00
	10	25 38	24 24	23 13	22 07	21 02	20 02	19 04	18 10	17 17	16 27	15 38	14 53		10
	20	28 24	27 05	25 50	24 38	23 29	22 23	21 21	20 21	19 23	18 27	17 35	16 44		20
	30	30 56	29 33	28 14	26 58	25 44	24 35	23 28	22 23	21 21	20 22	19 25	18 30		30
	40	33 12	31 46	30 24	29 06	27 50	26 30	25 26	24 18	23 13	22 10	21 08	20 09		40
	50	35 14	33 47	32 23	31 02	29 44	28 28	27 14	26 03	24 55	23 49	22 45	21 43		50
2	00	37 03	35 36	34 10	32 48	31 28	30 10	28 55	27 42	26 31	25 22	24 16	23 11	2	00
	10	38 40	37 12	35 47	34 24	33 02	31 43	30 27	29 12	27 59	26 48	25 40	24 32		10
	20	40 05	38 38	37 12	35 49	34 27	33 07	31 49	30 34	29 20	28 07	26 57	25 48		20
	30	41 20	39 54	38 28	37 05	35 43	34 23	33 05	31 48	30 33	29 19	28 07	26 57		30
	40	42 27	41 01	39 36	38 13	36 51	35 31	34 12	32 54	31 39	30 25	29 12	28 00		40
	50	43 23	41 58	40 35	39 12	37 50	36 31	35 12	33 55	32 39	31 24	30 11	28 58		50
3	00	44 12	42 49	41 26	40 05	38 44	37 24	36 06	34 49	33 32	32 17	31 03	29 51	3	00
	10	44 54	43 32	42 10	40 50	39 30	38 11	36 53	35 36	34 20	33 05	31 51	30 38		10
	20	45 30	44 08	42 48	41 28	40 09	38 51	37 34	36 17	35 02	33 46	32 33	31 20		20
	30	45 59	44 39	43 19	42 01	40 43	39 26	38 09	36 53	35 38	34 24	33 10	31 56		30
	40	46 22	45 03	43 45	42 28	41 11	39 55	38 39	37 24	36 09	34 55	33 42	32 29		40
	50	46 39	45 23	44 06	42 50	41 34	40 19	39 04	37 50	36 36	35 22	34 10	32 57		50
4	00	46 52	45 37	44 22	43 08	41 53	40 38	39 24	38 10	36 57	35 45	34 32	33 10	4	00
	10	47 01	45 47	44 33	43 20	42 06	40 53	39 40	38 27	37 15	36 02	34 51	33 39		10
	20	47 05	45 53	44 40	43 28	42 15	41 03	39 51	38 39	37 28	36 17	35 06	33 54		20
	30	47 05	45 54	44 42	43 32	42 21	41 10	39 58	38 48	37 37	36 27	35 17	34 06		30
	40	47 02	45 52	44 42	43 32	42 22	41 12	40 03	38 53	37 42	36 33	35 24	34 13		40
	50	46 56	45 46	44 37	43 29	42 20	41 11	40 02	38 53	37 45	36 36	35 27	34 18		50
5	00	46 44	45 37	44 28	43 21	42 14	41 06	39 58	38 51	37 43	36 35	35 27	34 19	5	00
	10	46 30	45 23	44 18	43 11	42 05	40 58	39 51	38 45	37 37	36 31	35 24	34 17		10
	20	46 13	45 08	44 02	42 58	41 52	40 47	39 41	38 35	37 30	36 23	35 18	34 11		20
	30	45 53	44 49	43 45	42 41	41 36	40 32	39 27	38 23	37 18	36 13	35 08	34 03		30
	40	45 30	44 27	43 24	42 22	41 19	40 15	39 11	38 08	37 04	36 00	34 56	33 52		40
	50	45 04	44 02	43 00	41 59	40 57	39 54	38 52	37 49	36 46	35 44	34 41	33 37		50
6	00	44 35	43 35	42 34	41 33	40 32	39 31	38 30	37 28	36 26	35 24	34 23	33 20	6	00
	10	44 04	43 04	42 05	41 05	40 05	39 05	38 04	37 05	36 03	35 02	34 01	33 00		10
	20	43 30	42 31	41 32	40 35	39 35	38 36	37 37	36 37	35 38	34 38	33 38	32 38		20
	30	42 53	41 56	40 59	40 01	39 03	38 05	37 06	36 08	35 09	34 11	33 12	32 12		30
	40	42 14	41 17	40 20	39 24	38 27	37 30	36 33	35 36	34 39	33 41	32 44	31 45		40
	50	41 32	40 36	39 41	38 46	37 49	36 54	35 58	35 02	34 06	33 09	32 13	31 16		50
7	00	40 47	39 53	38 58	38 04	37 10	36 15	35 20	34 25	33 30	32 34	31 39	30 43	7	00
	10	40 00	39 06	38 13	37 20	36 27	35 33	34 39	33 45	32 51	31 57	31 03	30 08		10
	20	39 10	38 18	37 26	36 34	35 41	34 48	33 55	33 03	32 11	31 18	30 25	29 31		20
	30	38 17	37 26	36 35	35 45	34 53	34 02	33 10	32 19	31 27	30 36	29 44	28 52		30
	40	37 22	36 33	35 43	34 53	34 03	33 13	32 22	31 32	30 42	29 52	29 01	28 10		40
	50	36 25	35 36	34 48	34 00	33 11	32 22	31 32	30 44	29 54	29 06	28 16	27 27		50
8	00	35 25	34 37	33 50	33 03	32 15	31 27	30 39	29 52	29 04	28 17	27 29	26 40	8	00
	10	34 22	33 36	32 50	32 04	31 17	30 31	29 45	28 58	28 12	27 25	26 39	25 53		10
	20	33 17	32 32	31 46	31 02	30 17	29 32	28 47	28 03	27 18	26 33	25 48	25 02		20
	30	32 10	31 25	30 41	29 59	29 15	28 31	27 47	27 04	26 20	25 38	24 54	24 10		30
	40	30 59	30 17	29 33	28 52	28 10	27 28	26 45	26 03	25 22	24 40	23 59	23 16		40
	50	29 46	29 05	28 24	27 43	27 03	26 22	25 42	25 01	24 21	23 41	23 01	22 20		50
9	00	28 30	27 51	27 12	26 32	25 53	25 14	24 35	23 56	23 17	22 39	22 00	21 22	9	00
	10	27 13	26 34	25 56	25 19	24 41	24 04	23 27	22 50	22 13	21 36	20 59	20 22		10
	20	25 51	25 15	24 40	24 04	23 28	22 52	22 16	21 41	21 05	20 30	19 55	19 20		20
	30	24 29	23 55	23 19	22 46	22 12	21 38	21 04	20 31	19 57	19 23	18 51	18 16		30
	40	23 03	22 31	21 57	21 26	20 53	20 21	19 49	19 18	18 46	18 15	17 43	17 11		40
	50	21 36	21 05	20 34	20 04	19 33	19 03	18 33	18 03	17 34	17 04	16 34	16 04		50
10	00	20 06	19 37	19 07	18 39	18 12	17 43	17 15	16 48	16 20	15 52	15 24	14 57	10	00
	10	18 33	18 07	17 40	17 14	16 47	16 21	15 55	15 29	15 04	14 39	14 13	13 47		10
	20	16 59	16 35	16 11	15 46	15 22	14 59	14 34	14 11	13 46	13 24	13 00	12 37		20
	30	15 23	15 01	14 39	14 17	13 55	13 32	13 11	12 50	12 28	12 07	11 46	11 25		30
	40	13 45	13 25	13 05	12 46	12 26	12 06	11 47	11 27	11 08	10 49	10 31	10 11		40
	50	12 06	11 49	11 31	11 13	10 56	10 39	10 21	10 05	9 48	9 31	9 14	8 57		50
11	00	10 25	10 10	9 55	9 40	9 24	9 09	8 54	8 40	8 25	8 11	7 57	7 43	11	00
	10	8 43	8 30	8 17	8 04	7 52	7 40	7 27	7 15	7 03	6 51	6 38	6 26		10
	20	7 00	6 49	6 39	6 28	6 19	6 09	5 59	5 49	5 39	5 30	5 20	5 10		20
	30	5 15	5 07	5 00	4 53	4 45	4 37	4 30	4 22	4 15	4 08	4 01	3 53		30
	40	3 30	3 25	3 21	3 15	3 10	3 05	3 00	2 55	2 50	2 45	2 41	2 36		40
	50	1 46	1 43	1 40	1 38	1 35	1 33	1 30	1 28	1 25	1 23	1 20	1 18		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or west of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 24°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 24°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	1	2	3	4	5	6	7	8	9	10	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	2 07	2 01	1 54	1 48	1 43	1 37	1 31	1 26	1 21	1 16	1 11		10	
	20	4 14	4 01	3 48	3 35	3 24	3 13	3 01	2 51	2 42	2 31	2 22		20	
	30	6 19	5 59	5 41	5 22	5 05	4 48	4 32	4 16	4 01	3 46	3 33		30	
	40	8 22	7 55	7 30	7 07	6 44	6 21	6 01	5 40	5 20	5 01	4 42		40	
	50	10 21	9 49	9 18	8 49	8 20	7 53	7 27	7 02	6 38	6 14	5 51		50	
1	00	12 17	11 39	11 03	10 29	9 55	9 33	8 52	8 22	7 53	7 25	6 58	1	00	
	10	14 08	13 26	12 45	12 05	11 26	10 50	10 15	9 40	9 07	8 35	8 04		10	
	20	15 55	15 07	14 22	13 38	12 55	12 14	11 35	10 56	10 19	9 43	9 08		20	
	30	17 36	16 44	15 55	15 07	14 20	13 35	12 52	12 10	11 29	10 48	10 10		30	
	40	19 12	18 17	17 24	16 32	15 41	14 53	14 06	13 20	12 35	11 52	11 10		40	
	50	20 42	19 44	18 47	17 52	16 59	16 06	15 16	14 28	13 39	12 52	12 08		50	
2	00	22 07	21 06	20 07	19 09	18 12	17 17	16 24	15 32	14 41	13 51	13 03	2	00	
	10	23 27	22 22	21 21	20 20	19 21	18 24	17 27	16 32	15 38	14 46	13 56		10	
	20	24 40	23 34	22 29	21 27	20 26	19 25	18 27	17 30	16 34	15 40	14 45		20	
	30	25 48	24 40	23 35	22 30	21 27	20 25	19 24	18 25	17 27	16 29	15 33		30	
	40	26 50	25 41	24 33	23 28	22 22	21 19	20 17	19 16	18 15	17 16	16 18		40	
	50	27 47	26 37	25 28	24 21	23 15	22 09	21 05	20 02	19 01	17 59	17 00		50	
3	00	28 38	27 28	26 18	25 10	24 03	22 56	21 51	20 46	19 43	18 40	17 39	3	00	
	10	29 25	28 14	27 03	25 54	24 46	23 38	22 32	21 27	20 22	19 18	18 16		10	
	20	30 07	28 55	27 45	26 35	25 26	24 17	23 10	22 04	20 58	19 53	18 49		20	
	30	30 44	29 32	28 21	27 11	26 01	24 52	23 44	22 37	21 31	20 25	19 19		30	
	40	31 16	30 04	28 53	27 43	26 33	25 24	24 15	23 07	21 59	20 53	19 48		40	
	50	31 44	30 32	29 22	28 11	27 00	25 51	24 42	23 34	22 26	21 19	20 13		50	
4	00	32 08	30 57	29 46	28 35	27 25	26 15	25 06	23 58	22 49	21 42	20 35	4	00	
	10	32 28	31 16	30 06	28 56	27 45	26 35	25 27	24 18	23 10	22 02	20 54		10	
	20	32 43	31 32	30 22	29 13	28 03	26 54	25 45	24 35	23 27	22 19	21 11		20	
	30	32 55	31 46	30 36	29 26	28 17	27 07	25 58	24 50	23 42	22 33	21 25		30	
	40	33 04	32 54	30 45	29 36	28 27	27 18	26 10	25 02	23 53	22 45	21 37		40	
	50	33 09	32 00	30 52	29 43	28 35	27 26	26 18	25 10	24 02	22 54	21 47		50	
5	00	33 11	32 03	30 55	29 47	28 39	27 31	26 24	25 16	24 08	23 01	21 53	5	00	
	10	33 10	32 02	30 55	29 47	28 41	27 34	26 26	25 19	24 11	23 05	21 58		10	
	20	33 05	31 59	30 52	29 46	28 39	27 32	26 26	25 19	24 12	23 05	21 59		20	
	30	32 57	31 52	30 46	29 41	28 35	27 28	26 23	25 17	24 11	23 05	21 59		30	
	40	32 47	31 43	30 38	29 32	28 28	27 22	26 18	25 13	24 07	23 02	21 55		40	
	50	32 34	31 30	30 27	29 23	28 18	27 14	26 10	25 05	24 00	22 55	21 51		50	
6	00	32 17	31 15	30 12	29 09	28 06	27 03	26 00	24 56	23 52	22 48	21 43	6	00	
	10	31 59	30 57	29 55	28 53	27 51	26 49	25 46	24 44	23 40	22 37	21 34		10	
	20	31 37	30 36	29 36	28 35	27 33	26 32	25 31	24 29	23 27	22 25	21 23		20	
	30	31 14	30 14	29 14	28 14	27 14	26 14	25 13	24 13	23 11	22 11	21 10		30	
	40	30 47	29 49	28 50	27 51	26 52	25 53	24 54	23 54	22 53	21 54	20 54		40	
	50	30 19	29 21	28 23	27 26	26 28	25 29	24 32	23 33	22 34	21 35	20 35		50	
7	00	29 47	28 51	27 54	26 58	26 01	25 04	24 08	23 10	22 12	21 14	20 16	7	00	
	10	29 13	28 19	27 23	26 28	25 33	24 37	23 41	22 46	21 49	20 52	19 55		10	
	20	28 38	27 44	26 50	25 56	25 02	24 08	23 13	22 19	21 23	20 27	19 32		20	
	30	27 59	27 07	26 15	25 22	24 29	23 36	22 43	21 50	20 55	20 01	19 07		30	
	40	27 20	26 28	25 37	24 46	23 54	23 03	22 10	21 19	20 25	19 33	18 40		40	
	50	26 37	25 48	24 58	24 08	23 17	22 26	21 36	20 46	19 55	19 03	18 12		50	
8	00	25 52	25 04	24 15	23 27	22 38	21 49	21 01	20 11	19 21	18 31	17 42	8	00	
	10	25 06	24 19	23 32	22 45	21 58	21 10	20 23	19 36	18 47	17 59	17 11		10	
	20	24 17	23 32	22 46	22 01	21 15	20 29	19 43	18 57	18 11	17 25	16 38		20	
	30	23 27	22 43	21 59	21 15	20 30	19 46	19 02	18 17	17 32	16 48	16 03		30	
	40	22 34	21 52	21 09	20 27	19 45	19 02	18 19	17 37	16 53	16 10	15 27		40	
	50	21 39	20 59	20 18	19 37	18 57	18 15	17 35	16 55	16 13	15 31	14 50		50	
9	00	20 43	20 04	19 25	18 47	18 08	17 28	16 49	16 10	15 31	14 51	14 11	9	00	
	10	19 45	19 08	18 31	17 53	17 16	16 39	16 02	15 24	14 46	14 09	13 31		10	
	20	18 45	18 10	17 35	16 59	16 24	15 48	15 13	14 37	14 02	13 26	12 50		20	
	30	17 43	17 10	16 36	16 03	15 30	14 56	14 23	13 49	13 16	12 42	12 08		30	
	40	16 40	16 08	15 38	15 06	14 34	14 03	13 31	13 00	12 28	11 57	11 25		40	
	50	15 35	15 06	14 36	14 07	13 38	13 08	12 39	12 09	11 39	11 10	10 40		50	
10	00	14 29	14 02	13 35	13 07	12 40	12 12	11 45	11 17	10 50	10 23	9 54	10	00	
	10	13 22	12 56	12 31	12 06	11 41	11 15	10 50	10 25	9 59	9 33	9 08		10	
	20	12 13	11 50	11 27	11 03	10 41	10 17	9 54	9 31	9 08	8 44	8 22		20	
	30	11 03	10 42	10 21	10 00	9 40	9 18	8 58	8 37	8 16	7 54	7 33		30	
	40	9 52	9 34	9 15	8 56	8 37	8 19	8 00	7 41	7 22	7 03	6 45		40	
	50	8 40	8 25	8 08	7 51	7 35	7 18	7 01	6 45	6 28	6 12	5 56		50	
11	00	7 28	7 13	7 00	6 45	6 31	6 17	6 03	5 49	5 34	5 20	5 05	11	00	
	10	6 15	6 02	5 50	5 39	5 27	5 15	5 03	4 51	4 39	4 27	4 16		10	
	20	5 00	4 51	4 41	4 32	4 22	4 12	4 03	3 54	3 44	3 34	3 25		20	
	30	3 45	3 38	3 32	3 24	3 17	3 10	3 02	2 55	2 49	2 41	2 34		30	
	40	2 31	2 25	2 21	2 16	2 12	2 06	2 02	1 58	1 52	1 48	1 43		40	
	50	1 16	1 13	1 11	1 08	1 05	1 03	1 01	0 59	0 56	0 54	0 51		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 25°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 25°.		
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.			
h.	m.	0	1	2	3	4	5	6	7	8	9	10	11	h.	m.		
0	00	180 00	89 28	65 34	47 47	36 11	28 34	23 21	19 38	16 50	14 42	13 00	11 36	0	00		
0	10	113 12	88 57	65 34	47 47	36 11	28 34	23 21	19 38	16 50	14 42	13 00	11 36	0	10		
0	20	101 21	88 57	65 34	47 47	36 11	28 34	23 21	19 38	16 50	14 42	13 00	11 36	0	20		
0	30	96 46	88 25	80 00	71 51	64 16	57 26	51 23	46 06	41 32	37 36	34 10	31 11	0	30		
0	40	94 10	87 53	81 33	75 35	69 17	63 36	58 21	53 32	49 09	45 13	41 41	38 29	0	40		
0	50	92 24	87 21	82 15	77 12	72 15	67 28	62 55	58 38	54 37	50 53	47 17	44 16	0	50		
1	00	91 03	86 49	82 33	78 19	74 06	70 01	66 02	62 12	58 35	55 07	51 53	48 49	1	00		
1	10	89 55	86 17	82 37	78 57	75 18	71 43	68 13	64 48	61 29	58 19	55 18	52 24	1	10		
1	20	88 56	85 44	82 32	79 18	76 05	72 54	69 45	66 41	63 41	60 46	57 56	55 14	1	20		
1	30	88 03	85 12	82 19	79 26	76 34	73 42	70 52	68 03	65 19	62 38	60 00	57 28	1	30		
1	40	87 14	84 39	82 03	79 27	76 50	74 14	71 39	69 05	66 33	64 04	61 38	59 14	1	40		
1	50	86 27	84 06	81 43	79 21	76 57	74 33	72 11	69 49	67 29	65 10	62 54	60 38	1	50		
2	00	85 43	83 32	81 21	79 09	76 57	74 45	72 32	70 21	68 10	66 01	63 53	61 45	2	00		
2	10	85 00	82 59	80 57	78 54	76 51	74 48	72 45	70 42	68 40	66 38	64 38	62 38	2	10		
2	20	84 18	82 25	80 31	78 37	76 41	74 46	72 51	70 55	69 00	67 05	65 12	63 18	2	20		
2	30	83 36	81 50	80 03	78 16	76 28	74 39	72 50	71 02	69 13	67 25	65 37	63 49	2	30		
2	40	82 56	81 15	79 35	77 53	76 10	74 29	72 45	71 02	69 20	67 36	65 54	64 12	2	40		
2	50	82 15	80 40	79 05	77 28	75 51	74 14	72 37	70 58	69 20	67 43	66 05	64 26	2	50		
3	00	81 35	80 04	78 33	77 01	75 30	73 57	72 24	70 50	69 17	67 43	66 09	64 36	3	00		
3	10	80 55	79 28	78 00	76 33	75 05	73 37	72 07	70 39	69 09	67 40	66 09	64 40	3	10		
3	20	80 14	78 51	77 28	76 04	74 40	73 14	71 49	70 23	68 58	67 32	66 06	64 38	3	20		
3	30	79 34	78 14	76 54	75 33	74 11	72 50	71 28	70 06	68 43	67 20	65 58	64 34	3	30		
3	40	78 52	77 36	76 18	75 01	73 42	72 24	71 04	69 45	68 25	67 05	65 46	64 25	3	40		
3	50	78 11	76 57	75 42	74 26	73 11	71 55	70 39	69 22	68 05	66 48	65 30	64 12	3	50		
4	00	77 29	76 17	75 05	73 52	72 39	71 25	70 12	68 57	67 42	66 28	65 13	63 57	4	00		
4	10	76 47	75 37	74 26	73 16	72 05	70 53	69 42	68 30	67 17	66 05	64 52	63 38	4	10		
4	20	76 04	74 56	73 48	72 39	71 30	70 21	69 11	68 01	66 51	65 40	64 29	63 17	4	20		
4	30	75 20	74 14	73 07	72 00	70 54	69 46	68 37	67 30	66 21	65 12	64 03	62 53	4	30		
4	40	74 36	73 31	72 26	71 21	70 15	69 09	68 03	66 57	65 50	64 42	63 35	62 27	4	40		
4	50	73 50	72 47	71 44	70 40	69 36	68 32	67 27	66 22	65 16	64 10	63 05	61 59	4	50		
5	00	73 04	72 02	71 00	69 57	68 55	67 52	66 48	65 45	64 41	63 37	62 33	61 28	5	00		
5	10	72 17	71 16	70 15	69 14	68 13	67 10	66 09	65 07	64 03	63 00	61 58	60 54	5	10		
5	20	71 28	70 29	69 28	68 28	67 28	66 28	65 27	64 26	63 25	62 23	61 21	60 20	5	20		
5	30	70 39	69 40	68 41	67 42	66 43	65 44	64 43	63 44	62 43	61 43	60 43	59 41	5	30		
5	40	69 48	68 50	67 52	66 54	65 55	64 57	63 59	63 00	62 00	61 01	60 02	59 02	5	40		
5	50	68 55	67 59	67 01	66 04	65 07	64 09	63 12	62 13	61 16	60 17	59 19	58 20	5	50		
6	00	68 02	67 06	66 09	65 13	64 16	63 19	62 23	61 25	60 29	59 31	58 34	57 36	6	00		
6	10	67 07	66 11	65 15	64 19	63 24	62 28	61 32	60 36	59 40	58 43	57 47	56 50	6	10		
6	20	66 09	65 15	64 20	63 25	62 30	61 35	60 39	59 44	58 48	57 53	56 57	56 01	6	20		
6	30	65 11	64 16	63 22	62 27	61 34	60 39	59 45	58 49	57 55	57 00	56 06	55 10	6	30		
6	40	64 10	63 16	62 22	61 29	60 36	59 41	58 47	57 53	57 00	56 05	55 11	54 17	6	40		
6	50	63 08	62 14	61 20	60 27	59 34	58 41	57 48	56 55	56 02	55 08	54 16	53 22	6	50		
7	00	62 01	61 10	60 17	59 25	58 32	57 40	56 46	55 54	55 02	54 09	53 17	52 23	7	00		
7	10	60 54	60 03	59 11	58 18	57 26	56 33	55 42	54 51	53 59	53 06	52 15	51 23	7	10		
7	20	59 45	58 53	58 02	57 10	56 19	55 27	54 36	53 44	52 53	52 02	51 11	50 20	7	20		
7	30	58 33	57 41	56 50	55 59	55 09	54 17	53 27	52 36	51 45	50 55	50 05	49 14	7	30		
7	40	57 17	56 27	55 36	54 45	53 55	53 05	52 14	51 25	50 35	49 45	48 56	48 06	7	40		
7	50	55 59	55 09	54 19	53 28	52 39	51 49	51 00	50 10	49 21	48 32	47 44	46 54	7	50		
8	00	54 38	53 48	52 58	52 08	51 20	50 30	49 41	48 53	48 04	47 16	46 28	45 39	8	00		
8	10	53 13	52 24	51 35	50 45	49 58	49 09	48 20	47 33	46 45	45 58	45 11	44 23	8	10		
8	20	51 45	50 56	50 08	49 19	48 32	47 44	46 56	46 09	45 22	44 35	43 50	43 03	8	20		
8	30	50 13	49 25	48 37	47 49	47 01	46 15	45 29	44 42	43 55	43 10	42 25	41 39	8	30		
8	40	48 36	47 49	47 02	46 15	45 29	44 42	43 56	43 11	42 26	41 41	40 57	40 12	8	40		
8	50	46 57	46 10	45 23	44 37	43 52	43 06	42 22	41 36	40 53	40 08	39 26	38 42	8	50		
9	00	45 12	44 26	43 40	42 54	42 10	41 26	40 42	39 59	39 15	38 32	37 51	37 09	9	00		
9	10	43 23	42 37	41 52	41 08	40 25	39 42	38 59	38 17	37 34	36 53	36 13	35 32	9	10		
9	20	41 29	40 44	40 01	39 17	38 35	37 53	37 11	36 31	35 50	35 10	34 31	33 51	9	20		
9	30	39 29	38 47	38 04	37 22	36 42	36 00	35 21	34 41	34 02	33 23	32 45	32 07	9	30		
9	40	37 25	36 44	36 03	35 22	34 42	34 04	33 25	32 47	32 09	31 32	30 55	30 19	9	40		
9	50	35 16	34 36	33 56	33 18	32 40	32 02	31 25	30 49	30 12	29 37	29 63	28 27	9	50		
10	00	33 01	32 23	31 45	31 08	30 32	29 56	29 21	28 46	28 12	27 39	27 06	26 33	10	00		
10	10	30 41	30 04	29 29	28 54	28 19	27 46	27 13	26 40	26 08	25 36	25 05	24 34	10	10		
10	20	28 15	27 41	27 08	26 36	26 03	25 31	25 00	24 30	24 00	23 30	23 02	22 33	10	20		
10	30	25 45	25 13	24 41	24 11	23 42	23 13	22 43	22 15	21 48	21 21	20 54	20 28	10	30		
10	40	23 08	22 39	22 10	21 42	21 16	20 49	20 23	19 58	19 33	19 08	18 44	18 20	10	40		
10	50	20 27	20 01	19 35	19 11	18 47	18 22	17 59	17 37	17 14	16 52	16 31	16 10	10	50		
11	00	17 41	17 18	16 56	16 34	16 13	15 52	15 32	15 12	14 53	14 33	14 15	13 56	11	00		
11	10	14 52	14 32	14 12	13 55	13 36	13 18	13 01	12 44	12 28	12 12	11 56	11 40	11	10		
11	20	11 58	11 42	11 26	11 11	10 57	10 42	10 28	10 15	10 01	9 48	9 36	9 23	11	20		
11	30	9 01	8 49	8 37	8 26	8 14	8 04	7 53	7 43	7 32	7 23	7 14	7 03	11	30		
11	40	6 03	5 54	5 45	5 38	5 31	5 23	5 17	5 09	5 03	4 56	4 49	4 43	11	40		
11	50	3 02	2 57	2 53	2 49	2 46	2 42	2 38	2 35	2 32	2 28	2 25	2 21	11	50		
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00		

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 25°.														DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 25°.													
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.													
h.	m.	o	i	o	i	o	i	o	i	o	i	o	i	h.	m.	o	i	o	i	o	i	o	i	o	i	o	i	h.	m.												
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00													
	10	10 28	9 30	8 41	7 58	7 21	6 48	6 19	5 54	5 30	5 09	4 50	4 32		10	10 28	9 30	8 41	7 58	7 21	6 48	6 19	5 54	5 30	5 09	4 50	4 32		10												
	20	20 09	18 24	16 53	15 34	14 24	13 21	12 26	11 37	10 52	10 11	9 33	8 59		20	20 09	18 24	16 53	15 34	14 24	13 21	12 26	11 37	10 52	10 11	9 33	8 59		20												
	30	28 35	26 18	24 18	22 31	20 55	19 29	18 11	17 01	15 58	15 00	14 06	13 17		30	28 35	26 18	24 18	22 31	20 55	19 29	18 11	17 01	15 58	15 00	14 06	13 17		30												
	40	35 38	33 04	30 45	28 40	26 46	25 03	23 28	22 03	20 43	19 31	18 24	17 21		40	35 38	33 04	30 45	28 40	26 46	25 03	23 28	22 03	20 43	19 31	18 24	17 21		40												
	50	41 21	38 41	36 15	33 58	31 53	29 58	28 13	26 35	25 04	23 40	22 22	21 10		50	41 21	38 41	36 15	33 58	31 53	29 58	28 13	26 35	25 04	23 40	22 22	21 10		50												
1	00	45 58	43 18	40 47	38 28	36 18	34 17	32 24	30 38	29 00	27 27	26 01	24 40	1	00	45 58	43 18	40 47	38 28	36 18	34 17	32 24	30 38	29 00	27 27	26 01	24 40	1	00												
	10	49 40	47 04	44 35	42 16	40 05	38 01	36 03	34 14	32 30	30 52	29 19	27 52		10	49 40	47 04	44 35	42 16	40 05	38 01	36 03	34 14	32 30	30 52	29 19	27 52		10												
	20	52 37	50 07	47 43	45 26	43 16	41 12	39 14	37 22	35 35	33 53	32 17	30 45		20	52 37	50 07	47 43	45 26	43 16	41 12	39 14	37 22	35 35	33 53	32 17	30 45		20												
	30	54 59	52 37	50 19	48 05	45 58	43 55	41 58	40 05	38 18	36 34	34 50	33 21		30	54 59	52 37	50 19	48 05	45 58	43 55	41 58	40 05	38 18	36 34	34 50	33 21		30												
	40	56 54	54 39	52 20	50 18	48 14	46 14	44 19	42 27	40 40	38 56	37 16	35 40		40	56 54	54 39	52 20	50 18	48 14	46 14	44 19	42 27	40 40	38 56	37 16	35 40		40												
	50	58 26	56 18	54 11	52 08	50 08	48 11	46 18	44 29	42 42	40 59	39 20	37 43		50	58 26	56 18	54 11	52 08	50 08	48 11	46 18	44 29	42 42	40 59	39 20	37 43		50												
2	00	59 40	57 38	55 38	53 40	51 44	49 51	48 01	46 03	44 29	42 47	41 08	39 32	2	00	59 40	57 38	55 38	53 40	51 44	49 51	48 01	46 03	44 29	42 47	41 08	39 32	2	00												
	10	60 40	58 43	56 48	54 54	53 03	51 15	49 28	47 43	46 00	44 20	42 43	41 07		10	60 40	58 43	56 48	54 54	53 03	51 15	49 28	47 43	46 00	44 20	42 43	41 07		10												
	20	61 26	59 35	57 45	55 57	54 09	52 24	50 40	48 59	47 19	45 41	44 05	42 34		20	61 26	59 35	57 45	55 57	54 09	52 24	50 40	48 59	47 19	45 41	44 05	42 34		20												
	30	62 02	60 17	58 31	56 47	55 04	53 23	51 42	50 03	48 26	46 50	45 16	43 44		30	62 02	60 17	58 31	56 47	55 04	53 23	51 42	50 03	48 26	46 50	45 16	43 44		30												
	40	62 29	60 49	59 08	57 27	55 49	54 10	52 33	50 57	49 23	47 49	46 17	44 46		40	62 29	60 49	59 08	57 27	55 49	54 10	52 33	50 57	49 23	47 49	46 17	44 46		40												
	50	62 49	61 12	59 36	57 59	56 24	54 49	53 15	51 42	50 10	48 38	47 09	45 40		50	62 49	61 12	59 36	57 59	56 24	54 49	53 15	51 42	50 10	48 38	47 09	45 40		50												
3	00	63 02	61 39	59 57	58 24	56 52	55 20	53 49	52 19	50 49	49 20	47 52	46 25	3	00	63 02	61 39	59 57	58 24	56 52	55 20	53 49	52 19	50 49	49 20	47 52	46 25	3	00												
	10	63 10	61 41	60 11	58 42	57 12	55 44	54 16	52 48	51 21	49 55	48 28	47 03		10	63 10	61 41	60 11	58 42	57 12	55 44	54 16	52 48	51 21	49 55	48 28	47 03		10												
	20	63 12	61 46	60 19	58 53	57 27	56 02	54 36	53 10	51 46	50 21	48 58	47 34		20	63 12	61 46	60 19	58 53	57 27	56 02	54 36	53 10	51 46	50 21	48 58	47 34		20												
	30	63 10	61 47	60 24	59 00	57 37	56 14	54 51	53 28	52 05	50 43	49 21	48 00		30	63 10	61 47	60 24	59 00	57 37	56 14	54 51	53 28	52 05	50 43	49 21	48 00		30												
	40	63 04	61 44	60 23	59 02	57 42	56 20	55 00	53 40	52 19	50 59	49 39	48 19		40	63 04	61 44	60 23	59 02	57 42	56 20	55 00	53 40	52 19	50 59	49 39	48 19		40												
	50	62 54	61 36	60 18	59 00	57 42	56 23	55 05	53 46	52 28	51 10	49 51	48 33		50	62 54	61 36	60 18	59 00	57 42	56 23	55 05	53 46	52 28	51 10	49 51	48 33		50												
4	00	62 42	61 25	60 10	58 53	57 38	56 21	55 05	53 48	52 32	51 15	49 59	48 43	4	00	62 42	61 25	60 10	58 53	57 38	56 21	55 05	53 48	52 32	51 15	49 59	48 43	4	00												
	10	62 25	61 11	59 58	58 44	57 30	56 15	55 00	53 46	52 31	51 17	50 02	48 48		10	62 25	61 11	59 58	58 44	57 30	56 15	55 00	53 46	52 31	51 17	50 02	48 48		10												
	20	62 06	60 55	59 43	58 30	57 18	56 06	54 53	53 40	52 27	51 15	50 02	48 48		20	62 06	60 55	59 43	58 30	57 18	56 06	54 53	53 40	52 27	51 15	50 02	48 48		20												
	30	61 44	60 33	59 24	58 14	57 03	55 52	54 42	53 31	52 19	51 08	49 57	48 46		30	61 44	60 33	59 24	58 14	57 03	55 52	54 42	53 31	52 19	51 08	49 57	48 46		30												
	40	61 19	60 11	59 03	57 54	56 45	55 36	54 27	53 17	52 08	50 58	49 48	48 38		40	61 19	60 11	59 03	57 54	56 45	55 36	54 27	53 17	52 08	50 58	49 48	48 38		40												
	50	60 52	59 46	58 39	57 33	56 25	55 17	54 09	53 01	51 53	50 45	49 36	48 28		50	60 52	59 46	58 39	57 33	56 25	55 17	54 09	53 01	51 53	50 45	49 36	48 28		50												
5	00	60 23	59 18	58 12	57 07	56 01	54 55	53 49	52 42	51 35	50 28	49 21	48 14	5	00	60 23	59 18	58 12	57 07	56 01	54 55	53 49	52 42	51 35	50 28	49 21	48 14	5	00												
	10	59 52	58 48	57 43	56 39	55 35	54 30	53 25	52 20	51 14	50 09	49 03	47 58		10	59 52	58 48	57 43	56 39	55 35	54 30	53 25	52 20	51 14	50 09	49 03	47 58		10												
	20	59 17	58 15	57 12	56 09	55 06	54 03	53 00	51 55	50 51	49 46	48 42	47 37		20	59 17	58 15	57 12	56 09	55 06	54 03	53 00	51 55	50 51	49 46	48 42	47 37		20												
	30	58 40	57 39	56 38	55 37	54 35	53 32	52 29	51 27	50 24	49 22	48 18	47 15		30	58 40	57 39	56 38	55 37	54 35	53 32	52 29	51 27	50 24	49 22	48 18	47 15		30												
	40	58 02	57 02	56 01	55 01	54 00	52 59	51 58	50 56	49 55	48 54	47 52	46 49		40	58 02	57 02	56 01	55 01	54 00	52 59	51 58	50 56	49 55	48 54	47 52	46 49		40												
	50	57 21	56 22	55 23	54 24	53 24	52 24	51 24	50 24	49 23	48 23	47 21	46 21		50	57 21	56 22	55 23	54 24	53 24	52 24	51 24	50 24	49 23	48 23	47 21	46 21		50												
6	00	56 38	55 40	54 42	53 43	52 45	51 47	50 47	49 48	48 49	47 49	46 49	45 49	6	00	56 38	55 40	54 42	53 43	52 45	51 47	50 47	49 48	48 49	47 49	46 49	45 49	6	00												
	10	55 52	54 56	53 59	53 01	52 03	51 05	50 07	49 10	48 11	47 13	46 14	45 15		10	55 52	54 56	53 59	5																						

AZIMUTH OR TRUE BEARING.

LATITUDE 25°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 25°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	4 16	4 01	3 47	3 35	3 23	3 12	3 02	2 52	2 42	2 34	2 26	2 19	0	10
0	20	8 28	7 59	7 32	7 07	6 44	6 22	6 01	5 42	5 24	5 07	4 50	4 35	0	20
0	30	12 31	11 49	11 11	10 34	9 59	9 17	8 57	8 29	8 02	7 36	7 12	6 50	0	30
0	40	16 24	15 30	14 40	13 52	13 09	12 27	11 45	11 11	10 37	10 03	9 32	9 02	0	40
0	50	20 01	18 58	17 59	17 01	16 09	15 19	14 32	13 48	13 05	12 26	11 47	11 10	0	50
1	00	23 23	22 11	21 04	20 00	19 00	18 02	17 08	16 17	15 28	14 41	13 57	13 14	1	00
1	10	26 29	25 10	23 57	22 47	21 39	20 37	19 36	18 39	17 44	16 51	16 02	15 13	1	10
1	20	29 17	27 54	26 37	25 21	24 09	23 01	21 54	20 52	19 51	18 54	17 59	17 07	1	20
1	30	31 51	30 24	29 02	27 42	26 27	25 14	24 04	22 56	21 53	20 51	19 51	18 55	1	30
1	40	34 08	32 39	31 14	29 52	28 32	27 17	26 04	24 53	23 45	22 40	21 36	20 35	1	40
1	50	36 10	34 39	33 13	31 49	30 27	29 09	27 53	26 40	25 29	24 20	23 14	22 10	1	50
2	00	37 59	36 27	35 00	33 34	32 12	30 51	29 34	28 18	27 05	25 54	24 45	23 39	2	00
2	10	39 34	38 04	36 36	35 10	33 46	32 25	31 05	29 48	28 33	27 21	26 10	25 00	2	10
2	20	40 59	39 28	38 01	36 34	35 10	33 49	32 29	31 10	29 54	28 39	27 27	26 17	2	20
2	30	42 12	40 43	39 16	37 50	36 25	35 04	33 44	32 24	31 07	29 52	28 39	27 26	2	30
2	40	43 16	41 48	40 22	38 57	37 33	36 11	34 50	33 31	32 13	30 57	29 43	28 30	2	40
2	50	44 11	42 45	41 19	39 55	38 31	37 10	35 49	34 30	33 13	31 56	30 40	29 27	2	50
3	00	44 58	43 33	42 09	40 45	39 23	38 02	36 42	35 23	34 05	32 49	31 33	30 19	3	00
3	10	45 39	44 14	42 52	41 30	40 08	38 47	37 28	36 10	34 52	33 36	32 20	31 05	3	10
3	20	46 12	44 48	43 27	42 07	40 46	39 26	38 08	36 50	35 33	34 17	33 01	31 47	3	20
3	30	46 38	45 17	43 58	42 38	41 19	40 00	38 42	37 25	36 08	34 53	33 38	32 23	3	30
3	40	47 00	45 40	44 22	43 04	41 45	40 27	39 11	37 54	36 38	35 23	34 09	32 55	3	40
3	50	47 15	45 58	44 41	43 24	42 07	40 51	39 35	38 19	37 03	35 49	34 35	33 22	3	50
4	00	47 26	46 10	44 55	43 39	42 23	41 08	39 54	38 39	37 24	36 11	34 57	33 44	4	00
4	10	47 33	46 18	45 04	43 49	42 35	41 22	40 08	38 54	37 40	36 28	35 15	34 03	4	10
4	20	47 35	46 22	45 09	43 56	42 43	41 30	40 18	39 05	37 53	36 41	35 29	34 16	4	20
4	30	47 33	46 22	45 11	43 59	42 46	41 35	40 24	39 12	38 00	36 50	35 39	34 28	4	30
4	40	47 28	46 18	45 08	43 57	42 46	41 36	40 26	39 16	38 05	36 55	35 45	34 34	4	40
4	50	47 20	46 10	45 02	43 53	42 43	41 34	40 25	39 15	38 05	36 56	35 47	34 38	4	50
5	00	47 06	45 58	44 52	43 44	42 35	41 27	40 20	39 11	38 02	36 54	35 46	34 38	5	00
5	10	46 51	45 45	44 39	43 32	42 25	41 18	40 11	39 03	37 56	36 49	35 42	34 34	5	10
5	20	46 33	45 28	44 22	43 17	42 11	41 06	39 59	38 53	37 47	36 41	35 34	34 28	5	20
5	30	46 11	45 07	44 03	42 58	41 54	40 49	39 45	38 40	37 35	36 30	35 24	34 19	5	30
5	40	45 46	44 43	43 41	42 38	41 34	40 30	39 27	38 23	37 19	36 15	35 10	34 06	5	40
5	50	45 19	44 17	43 16	42 14	41 11	40 09	39 06	38 04	37 01	35 58	34 55	33 51	5	50
6	00	44 48	43 48	42 48	41 47	40 45	39 44	38 43	37 41	36 39	35 37	34 35	33 33	6	00
6	10	44 16	43 16	42 17	41 17	40 18	39 17	38 17	37 16	36 15	35 15	34 13	33 12	6	10
6	20	42 41	42 42	41 44	40 45	39 47	38 48	37 48	36 49	35 49	34 49	33 49	32 49	6	20
6	30	43 03	42 05	41 08	40 11	39 12	38 15	37 17	36 18	35 20	34 21	33 21	32 23	6	30
6	40	42 22	41 26	40 30	39 33	38 36	37 40	36 42	35 45	34 48	33 51	32 52	31 55	6	40
6	50	41 38	40 44	39 49	38 53	37 57	37 01	36 06	35 10	34 14	33 17	32 21	31 24	6	50
7	00	40 52	39 58	39 05	38 11	37 16	36 22	35 27	34 32	33 37	32 42	31 46	30 50	7	00
7	10	40 05	39 12	38 18	37 26	36 32	35 39	34 45	33 51	32 58	32 04	31 09	30 15	7	10
7	20	39 14	38 21	37 30	36 38	35 46	34 53	34 01	33 08	32 16	31 23	30 30	29 37	7	20
7	30	38 20	37 30	36 39	35 48	34 58	34 06	33 15	32 24	31 32	30 41	29 49	28 57	7	30
7	40	37 24	36 35	35 45	34 55	34 06	33 16	32 26	31 36	30 46	29 56	29 05	28 15	7	40
7	50	36 26	35 37	34 50	34 01	33 12	32 24	31 36	30 47	29 58	29 09	28 19	27 30	7	50
8	00	35 25	34 37	33 51	33 03	32 17	31 29	30 41	29 54	29 07	28 20	27 31	26 43	8	00
8	10	34 22	33 35	32 50	32 04	31 18	30 32	29 46	29 00	28 14	27 28	26 42	25 55	8	10
8	20	33 16	32 31	31 47	31 02	30 17	29 33	28 48	28 04	27 19	26 34	25 49	25 05	8	20
8	30	32 08	31 24	30 41	29 57	29 15	28 31	27 47	27 04	26 22	25 38	24 55	24 12	8	30
8	40	30 56	30 13	29 33	28 51	28 09	27 27	26 46	26 04	25 22	24 41	23 58	23 17	8	40
8	50	29 42	29 02	28 22	27 41	27 01	26 21	25 42	25 01	24 21	23 41	23 01	22 21	8	50
9	00	28 26	27 48	27 09	26 30	25 51	25 13	24 35	23 56	23 17	22 39	22 01	21 22	9	00
9	10	27 08	26 31	25 54	25 17	24 40	24 03	23 25	22 49	22 12	21 35	20 59	20 22	9	10
9	20	25 47	25 11	24 37	24 01	23 25	22 50	22 15	21 39	21 05	20 30	19 55	19 20	9	20
9	30	24 24	23 50	23 17	22 43	22 09	21 36	21 02	20 28	19 56	19 23	18 49	18 17	9	30
9	40	22 59	22 26	21 55	21 22	20 51	20 19	19 48	19 16	18 45	18 14	17 42	17 11	9	40
9	50	21 31	21 01	20 31	20 01	19 31	19 01	18 31	18 02	17 32	17 03	16 34	16 05	9	50
10	00	20 01	19 33	19 05	18 37	18 09	17 41	17 13	16 46	16 18	15 51	15 23	14 56	10	00
10	10	18 29	18 02	17 37	17 10	16 45	16 19	15 53	15 27	15 02	14 37	14 12	13 46	10	10
10	20	16 55	16 31	16 07	15 43	15 19	14 55	14 32	14 08	13 46	13 22	12 59	12 36	10	20
10	30	15 18	14 57	14 36	14 14	13 52	13 30	13 09	12 47	12 27	12 06	11 44	11 24	10	30
10	40	13 42	13 21	13 02	12 43	12 23	12 03	11 44	11 25	11 07	10 48	10 30	10 11	10	40
10	50	12 03	11 45	11 28	11 10	10 53	10 36	10 19	10 02	9 46	9 30	9 13	8 56	10	50
11	00	10 22	10 07	9 52	9 37	9 22	9 07	8 53	8 38	8 24	8 10	7 56	7 41	11	00
11	10	8 41	8 28	8 15	8 03	7 50	7 38	7 26	7 14	7 02	6 50	6 37	6 26	11	10
11	20	6 57	6 48	6 37	6 27	6 17	6 07	5 57	5 47	5 38	5 28	5 19	5 10	11	20
11	30	5 14	5 06	4 59	4 51	4 44	4 36	4 29	4 21	4 14	4 07	4 00	3 52	11	30
11	40	3 30	3 25	3 19	3 14	3 09	3 04	2 59	2 54	2 49	2 45	2 40	2 35	11	40
11	50	1 45	1 42	1 40	1 38	1 35	1 32	1 30	1 28	1 25	1 23	1 21	1 18	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 25°.				DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 25°.			
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.				
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.			
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00			
	10	2 11	2 03	1 57	1 51	1 44	1 39	1 33	1 27	1 23	1 18	1 12		10			
	20	4 21	4 06	3 53	3 41	3 28	3 17	3 06	2 54	2 44	2 35	2 24		20			
	30	6 28	6 08	5 48	5 29	5 11	4 54	4 37	4 21	4 05	3 50	3 36		30			
	40	8 34	8 07	7 41	7 16	6 52	6 29	6 07	5 47	5 26	5 06	4 47		40			
	50	10 36	10 03	9 30	9 00	8 31	8 02	7 36	7 10	6 44	6 21	5 57		50			
1	00	12 33	11 54	11 18	10 42	10 08	9 35	9 03	8 31	8 01	7 33	7 05	1	00			
	10	14 28	13 43	13 01	12 20	11 40	11 03	10 26	9 51	9 16	8 44	8 12		10			
	20	16 16	15 27	14 39	13 54	13 11	12 29	11 47	11 08	10 29	9 53	9 18		20			
	30	17 59	17 06	16 14	15 25	14 37	13 50	13 06	12 22	11 40	10 59	10 20		30			
	40	19 36	18 39	17 45	16 51	15 59	15 09	14 21	13 34	12 48	12 04	11 21		40			
	50	21 08	20 07	19 09	18 13	17 17	16 24	15 33	14 42	13 53	13 06	12 19		50			
2	00	22 33	21 30	20 30	19 30	18 32	17 35	16 41	15 47	14 55	14 04	13 15	2	00			
	10	23 53	22 48	21 44	20 42	19 41	18 42	17 45	16 49	15 54	15 00	14 08		10			
	20	25 07	24 00	22 54	21 49	20 46	19 45	18 45	17 47	16 49	15 53	14 59		20			
	30	26 15	25 06	23 59	22 53	21 48	20 44	19 42	18 41	17 42	16 44	15 47		30			
	40	27 17	26 07	24 58	23 51	22 44	21 39	20 36	19 33	18 30	17 31	16 32		40			
	50	28 14	27 02	25 52	24 44	23 35	22 29	21 24	20 20	19 17	18 15	17 14		50			
3	00	29 06	27 53	26 42	25 32	24 23	23 15	22 10	21 04	19 59	18 56	17 54	3	00			
	10	29 51	28 39	27 27	26 17	25 07	23 59	22 51	21 44	20 38	19 34	18 30		10			
	20	30 33	29 20	28 08	26 57	25 46	24 37	23 29	22 21	21 14	20 08	19 03		20			
	30	31 09	29 56	28 44	27 33	26 21	25 11	24 03	22 55	21 47	20 40	19 34		30			
	40	31 40	30 28	29 16	28 04	26 52	25 42	24 34	23 25	22 16	21 09	20 01		40			
	50	32 08	30 55	29 43	28 32	27 20	26 10	25 01	23 51	22 42	21 34	20 27		50			
4	00	32 31	31 19	30 07	28 56	27 44	26 33	25 24	24 14	23 05	21 56	20 49	4	00			
	10	32 50	31 38	30 27	29 16	28 05	26 54	25 44	24 34	23 25	22 16	21 09		10			
	20	33 05	31 54	30 43	29 32	28 21	27 11	26 01	24 51	23 42	22 33	21 25		20			
	30	33 16	32 05	30 55	29 45	28 34	27 24	26 15	25 05	23 56	22 48	21 39		30			
	40	33 24	32 13	31 04	29 55	28 44	27 35	26 26	25 16	24 07	22 58	21 50		40			
	50	33 28	32 19	31 10	30 00	28 51	27 42	26 34	25 24	24 16	23 08	21 59		50			
5	00	33 29	32 21	31 12	30 03	28 54	27 46	26 38	25 29	24 22	23 13	22 05	5	00			
	10	33 27	32 19	31 12	30 03	28 55	27 47	26 40	25 32	24 24	23 17	22 09		10			
	20	33 21	32 14	31 08	30 01	28 53	27 46	26 40	25 32	24 24	23 17	22 11		20			
	30	33 13	32 06	31 00	29 55	28 48	27 42	26 36	25 29	24 22	23 16	22 10		30			
	40	33 01	31 56	30 51	29 46	28 40	27 35	26 30	25 24	24 18	23 12	22 06		40			
	50	32 47	31 43	30 39	29 35	28 30	27 25	26 21	25 16	24 11	23 06	22 01		50			
6	00	32 30	31 27	30 24	29 21	28 17	27 13	26 10	25 06	24 01	22 57	21 53	6	00			
	10	32 10	31 09	30 07	29 04	28 01	26 59	25 57	24 53	23 50	22 47	21 43		10			
	20	31 48	30 47	29 46	28 46	27 43	26 42	25 41	24 39	23 36	22 34	21 31		20			
	30	31 23	30 24	29 24	28 24	27 23	26 23	25 22	24 22	23 20	22 19	21 17		30			
	40	30 56	29 58	28 59	28 01	27 01	26 02	25 02	24 02	23 02	22 01	21 01		40			
	50	30 26	29 29	28 32	27 34	26 36	25 38	24 40	23 41	22 42	21 43	20 43		50			
7	00	29 54	28 58	28 03	27 06	26 09	25 12	24 14	23 17	22 20	21 22	20 24	7	00			
	10	29 20	28 25	27 30	26 35	25 39	24 43	23 48	22 52	21 55	20 59	20 02		10			
	20	28 44	27 50	26 56	26 02	25 07	24 13	23 19	22 24	21 29	20 34	19 38		20			
	30	28 05	27 13	26 20	25 28	24 34	23 41	22 48	21 55	21 01	20 07	19 12		30			
	40	27 24	26 33	25 43	24 51	23 59	23 07	22 16	21 24	20 31	19 39	18 46		40			
	50	26 41	25 51	25 02	24 12	23 22	22 31	21 41	20 50	20 00	19 09	18 17		50			
8	00	25 56	25 07	24 20	23 32	22 42	21 54	21 05	20 15	19 26	18 36	17 47	8	00			
	10	25 08	24 22	23 35	22 48	22 01	21 14	20 27	19 39	18 51	18 03	17 15		10			
	20	24 20	23 35	22 49	22 04	21 18	20 33	19 47	19 01	18 14	17 28	16 41		20			
	30	23 29	22 45	22 02	21 17	20 33	19 49	19 06	18 21	17 36	16 52	16 07		30			
	40	22 35	21 53	21 11	20 29	19 46	19 04	18 22	17 39	16 56	16 14	15 30		40			
	50	21 41	21 00	20 20	19 39	18 59	18 18	17 38	16 57	16 16	15 35	14 53		50			
9	00	20 44	20 05	19 27	18 48	18 09	17 30	16 52	16 12	15 33	14 53	14 14	9	00			
	10	19 45	19 08	18 32	17 55	17 17	16 41	16 03	15 26	14 49	14 12	13 34		10			
	20	18 45	18 10	17 35	17 00	16 25	15 50	15 15	14 39	14 04	13 28	12 52		20			
	30	17 43	17 10	16 37	16 04	15 30	14 57	14 24	13 51	13 17	12 43	12 10		30			
	40	16 39	16 09	15 38	15 07	14 34	14 04	13 33	13 01	12 29	11 57	11 27		40			
	50	15 35	15 06	14 37	14 07	13 38	13 08	12 40	12 10	11 41	11 11	10 42		50			
10	00	14 29	14 01	13 35	13 07	12 40	12 13	11 45	11 19	10 51	10 24	9 56	10	00			
	10	13 21	12 56	12 31	12 06	11 41	11 16	10 51	10 25	10 00	9 35	9 10		10			
	20	12 13	11 50	11 27	11 04	10 41	10 18	9 55	9 32	9 08	8 45	8 23		20			
	30	11 03	10 42	10 22	10 00	9 40	9 19	8 58	8 37	8 16	7 55	7 34		30			
	40	9 52	9 33	9 14	8 56	8 37	8 19	8 00	7 41	7 23	7 04	6 46		40			
	50	8 39	8 24	8 07	7 51	7 35	7 19	7 02	6 46	6 29	6 13	5 56		50			
11	00	7 28	7 13	6 59	6 45	6 30	6 16	6 03	5 49	5 34	5 21	5 06	11	00			
	10	6 14	6 02	5 50	5 39	5 27	5 15	5 03	4 51	4 40	4 27	4 16		10			
	20	4 59	4 50	4 40	4 31	4 22	4 13	4 03	3 54	3 44	3 35	3 25		20			
	30	3 45	3 38	3 31	3 24	3 17	3 10	3 02	2 56	2 48	2 41	2 34		30			
	40	2 31	2 26	2 21	2 16	2 12	2 06	2 02	1 58	1 52	1 48	1 43		40			
	50	1 15	1 13	1 10	1 08	1 06	1 04	1 01	0 58	0 56	0 54	0 52		50			
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00			

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 26°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 26°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
0	00	180 00	180 00	.....	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	130 54	113 22	89 27	65 23	47 31	35 44	28 19	23 08	19 26	16 40	14 31	12 51		10
	20	112 45	101 24	88 54	76 18	64 42	54 48	46 40	40 08	34 54	30 40	27 12	24 21		20
	30	104 47	96 46	88 21	79 52	71 40	64 01	57 08	51 04	45 47	41 12	37 15	33 50		30
	40	100 18	94 09	87 48	81 25	75 06	69 03	63 20	58 02	53 12	48 49	44 51	41 19		40
	50	97 19	92 21	87 15	82 07	77 01	72 01	67 12	62 37	58 18	54 16	50 31	47 05		50
1	00	95 08	90 57	86 42	82 24	78 07	73 53	69 45	65 44	61 54	58 14	54 45	51 30	1	00
	10	93 25	89 49	86 08	82 27	78 45	75 05	71 28	67 56	64 29	61 09	57 57	54 55		10
	20	91 58	88 45	85 35	82 20	79 05	75 51	72 38	69 28	66 21	63 20	60 24	57 33		20
	30	90 44	87 53	85 01	82 08	79 13	76 19	73 26	70 33	67 44	64 59	62 15	59 37		30
	40	89 37	87 03	84 27	81 50	79 12	76 34	73 56	71 20	68 45	66 12	63 41	61 14		40
	50	88 36	86 15	83 53	81 29	79 05	76 40	74 16	71 52	69 29	67 07	64 47	62 29		50
2	00	87 39	85 29	83 18	81 06	78 53	76 40	74 26	72 12	70 00	67 48	65 37	63 28	2	00
	10	86 46	84 45	82 43	80 40	78 37	76 33	74 29	72 24	70 21	68 17	66 14	64 13		10
	20	85 55	84 01	82 08	80 14	78 18	76 22	74 25	72 29	70 33	68 37	66 41	64 46		20
	30	85 05	83 19	81 32	79 44	77 56	76 07	74 18	72 28	70 38	68 50	67 00	65 11		30
	40	84 17	82 37	80 56	79 15	77 32	75 49	74 06	72 22	70 39	68 55	67 11	65 27		40
	50	83 30	81 55	80 20	78 43	77 06	75 29	73 51	72 13	70 34	68 54	67 16	65 37		50
3	00	82 44	81 13	79 43	78 11	76 39	75 05	73 32	71 59	70 25	68 50	67 16	65 42	3	00
	10	81 58	80 32	79 05	77 38	76 09	74 41	73 11	71 42	70 11	68 42	67 12	65 41		10
	20	81 13	79 50	78 27	77 03	75 39	74 14	72 48	71 22	69 56	68 30	67 03	65 36		20
	30	80 28	79 08	77 48	76 27	75 07	73 45	72 22	71 00	69 37	68 14	66 50	65 26		30
	40	79 42	78 26	77 09	75 51	74 33	73 14	71 54	70 35	69 16	67 56	66 34	65 14		40
	50	78 58	77 44	76 29	75 14	73 58	72 42	71 26	70 09	68 52	67 34	66 16	64 59		50
4	00	78 12	77 01	75 48	74 35	73 22	72 08	70 55	69 40	68 26	67 10	65 55	64 39	4	00
	10	77 26	76 16	75 06	73 56	72 45	71 34	70 21	69 09	67 57	66 44	65 31	64 18		10
	20	76 40	75 32	74 24	73 15	72 06	70 57	69 47	68 37	67 27	66 16	65 05	63 54		20
	30	75 53	74 47	73 41	72 34	71 26	70 19	69 11	68 03	66 55	65 45	64 37	63 27		30
	40	75 06	74 00	72 56	71 51	70 46	69 40	68 34	67 28	66 21	65 14	64 06	62 58		40
	50	74 17	73 14	72 11	71 07	70 03	69 00	67 55	66 50	65 44	64 39	63 33	62 27		50
5	00	73 28	72 26	71 25	70 22	69 19	68 17	67 14	66 10	65 06	64 03	62 59	61 54	5	00
	10	72 38	71 37	70 37	69 36	68 35	67 34	66 31	65 29	64 27	63 24	62 21	61 18		10
	20	71 47	70 48	69 48	68 49	67 49	66 48	65 47	64 47	63 45	62 44	61 42	60 40		20
	30	70 55	69 57	68 58	68 00	67 00	66 01	65 01	64 02	63 02	62 02	61 01	60 00		30
	40	70 02	69 04	68 07	67 09	66 12	65 14	64 15	63 16	62 17	61 17	60 19	59 19		40
	50	69 07	68 11	67 14	66 17	65 21	64 23	63 25	62 28	61 29	60 32	59 33	58 35		50
6	00	68 11	67 15	66 20	65 23	64 28	63 32	62 34	61 38	60 41	59 43	58 47	57 49	6	00
	10	67 13	66 19	65 24	64 29	63 33	62 37	61 41	60 46	59 49	58 54	57 57	57 01		10
	20	66 15	65 20	64 26	63 31	62 37	61 42	60 48	59 52	58 57	58 01	57 06	56 11		20
	30	65 14	64 20	63 27	62 33	61 39	60 45	59 50	58 56	58 02	57 08	56 13	55 18		30
	40	64 12	63 17	62 25	61 32	60 38	59 45	58 51	57 58	57 04	56 11	55 17	54 23		40
	50	63 07	62 15	61 22	60 29	59 36	58 44	57 51	56 58	56 05	55 12	54 19	53 26		50
7	00	62 00	61 08	60 16	59 23	58 31	57 39	56 47	55 55	55 03	54 11	53 19	52 26	7	00
	10	60 51	59 59	59 08	58 16	57 25	56 34	55 41	54 50	53 58	53 07	52 15	51 24		10
	20	59 39	58 48	57 57	57 07	56 15	55 24	54 33	53 43	52 52	52 01	51 10	50 20		20
	30	58 25	57 34	56 44	55 54	55 03	54 13	53 22	52 33	51 43	50 53	50 02	49 13		30
	40	57 08	56 18	55 28	54 39	53 48	52 59	52 09	51 19	50 30	49 41	48 52	48 03		40
	50	55 49	54 59	54 10	53 21	52 31	51 42	50 53	50 04	49 15	48 28	47 39	46 50		50
8	00	54 25	53 36	52 47	51 59	51 10	50 21	49 34	48 45	47 57	47 10	46 22	45 35	8	00
	10	52 59	52 11	51 23	50 35	49 46	48 59	48 12	47 24	46 37	45 51	45 03	44 17		10
	20	51 30	50 42	49 54	49 07	48 19	47 32	46 45	45 58	45 13	44 28	43 41	42 55		20
	30	49 57	49 09	48 22	47 35	46 49	46 03	45 16	44 31	43 46	43 01	42 15	41 31		30
	40	48 20	47 33	46 46	46 00	45 15	44 30	43 44	42 59	42 15	41 31	40 47	40 03		40
	50	46 38	45 53	45 07	44 21	43 36	42 52	42 08	41 24	40 40	39 58	39 15	38 32		50
9	00	44 52	44 08	43 23	42 38	41 54	41 11	40 28	39 45	39 03	38 21	37 39	36 58	9	00
	10	43 03	42 18	41 35	40 51	40 09	39 27	38 44	38 03	37 22	36 41	36 00	35 20		10
	20	41 08	40 25	39 42	39 01	38 19	37 38	36 57	36 17	35 37	34 57	34 18	33 39		20
	30	39 08	38 26	37 45	37 05	36 24	35 44	35 05	34 26	33 48	33 10	32 32	31 56		30
	40	37 04	36 23	35 44	35 04	34 25	33 47	33 09	32 32	31 55	31 19	30 42	30 07		40
	50	34 55	34 16	33 37	32 59	32 22	31 45	31 09	30 34	29 59	29 25	28 50	28 17		50
10	00	32 41	32 03	31 26	30 50	30 15	29 40	29 06	28 32	27 59	27 26	26 54	26 22	10	00
	10	30 20	29 45	29 10	28 36	28 02	27 30	26 58	26 25	25 55	25 34	24 53	24 24		10
	20	27 56	27 22	26 50	26 18	25 47	25 16	24 46	24 16	23 47	23 19	22 51	22 23		20
	30	25 25	24 55	24 25	23 55	23 27	22 58	22 30	22 03	21 36	21 10	20 44	20 19		30
	40	22 51	22 22	21 55	21 28	21 01	20 36	20 10	19 46	19 21	18 58	18 34	18 11		40
	50	20 11	19 45	19 21	18 57	18 34	18 10	17 47	17 26	17 03	16 43	16 21	16 01		50
11	00	17 27	17 05	16 43	16 22	16 01	15 42	15 21	15 03	14 43	14 25	14 07	13 49	11	00
	10	14 39	14 20	14 02	13 44	13 27	13 09	12 52	12 36	12 21	12 05	11 49	11 34		10
	20	11 48	11 32	11 17	11 03	10 48	10 35	10 21	10 08	9 55	9 43	9 30	9 18		20
	30	8 53	8 41	8 30	8 19	8 09	7 58	7 48	7 38	7 28	7 18	7 09	6 59		30
	40	5 57	5 49	5 41	5 33	5 27	5 20	5 13	5 06	4 59	4 52	4 47	4 40		40
	50	2 59	2 55	2 51	2 47	2 43	2 40	2 37	2 33	2 29	2 27	2 24	2 20		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 26°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 26°.		
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.			
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	11 28	10 20	9 22	8 33	7 51	7 14	6 42	6 13	5 47	5 25	5 03	4 45		10		
	20	21 56	19 55	18 10	16 40	15 21	14 11	13 10	12 15	11 26	10 41	10 00	9 23		20		
	30	30 52	28 17	26 00	23 59	22 13	20 38	19 13	17 55	16 46	15 42	14 45	13 52		30		
	40	38 08	35 16	32 42	30 23	28 18	26 25	24 42	23 08	21 42	20 24	19 12	18 04		40		
	50	43 54	40 58	38 17	35 50	33 34	31 30	29 35	27 50	26 12	24 42	23 18	22 00		50		
1	00	48 25	45 33	42 52	40 22	38 02	35 53	33 51	31 58	30 13	28 34	27 01	25 36	1	00		
	10	52 00	49 15	46 38	44 09	41 49	39 37	37 33	35 36	33 46	32 02	30 24	28 52		10		
	20	54 49	52 12	49 41	47 16	44 59	42 48	40 43	38 45	36 52	35 05	33 24	31 48		20		
	30	57 04	54 34	52 10	49 51	47 37	45 29	43 25	41 28	39 35	37 47	36 04	34 24		30		
	40	58 50	56 29	54 12	51 58	49 50	47 45	45 44	43 48	41 56	40 08	38 24	36 44		40		
	50	60 13	58 01	55 50	53 43	51 39	49 39	47 41	45 47	43 57	42 10	40 27	38 46		50		
2	00	61 20	59 15	57 10	55 08	53 10	51 14	49 20	47 29	45 41	43 56	42 13	40 34	2	00		
	10	62 12	60 13	58 15	56 19	54 25	52 33	50 43	48 55	47 10	45 27	43 46	42 08		10		
	20	62 53	60 59	59 07	57 15	55 26	53 39	51 52	50 08	48 25	46 45	45 06	43 29		20		
	30	63 23	61 35	59 48	58 01	56 17	54 33	52 50	51 09	49 30	47 51	46 15	44 40		30		
	40	63 45	62 01	60 19	58 37	56 56	55 17	53 37	52 00	50 23	48 47	47 13	45 40		40		
	50	63 59	62 21	60 43	59 04	57 28	55 51	54 16	52 41	51 07	49 34	48 02	46 32		50		
3	00	64 08	62 33	60 59	59 26	57 52	56 19	54 46	53 14	51 43	50 13	48 43	47 14	3	00		
	10	64 40	63 10	61 09	59 39	58 10	56 39	55 10	53 41	52 13	50 44	49 17	47 51		10		
	20	64 09	62 42	61 15	59 47	58 21	56 54	55 27	54 01	52 35	51 09	49 44	48 20		20		
	30	64 03	62 39	61 15	59 50	58 27	57 02	55 38	54 15	52 51	51 27	50 05	48 42		30		
	40	63 53	62 32	61 11	59 49	58 28	57 06	55 45	54 23	53 02	51 40	50 20	48 59		40		
	50	63 40	62 21	61 02	59 43	58 25	57 06	55 46	54 27	53 09	51 49	50 30	49 11		50		
4	00	63 24	62 07	60 51	59 35	58 17	57 01	55 44	54 26	53 10	51 53	50 35	49 19	4	00		
	10	63 04	61 50	60 36	59 22	58 07	56 52	55 37	54 22	53 07	51 52	50 36	49 21		10		
	20	62 42	61 31	60 18	59 05	57 53	56 40	55 27	54 14	53 01	51 47	50 34	49 20		20		
	30	62 18	61 07	59 57	58 46	57 36	56 25	55 14	54 03	52 50	51 38	50 27	49 15		30		
	40	61 50	60 42	59 33	58 25	57 16	56 06	54 57	53 47	52 37	51 27	50 16	49 07		40		
	50	61 20	60 14	59 07	57 59	56 52	55 45	54 37	53 28	52 20	51 12	50 03	48 54		50		
5	00	60 49	59 44	58 39	57 33	56 27	55 20	54 14	53 08	52 01	50 53	49 46	48 39	5	00		
	10	60 15	59 11	58 07	57 02	55 58	54 54	53 48	52 43	51 38	50 31	49 26	48 20		10		
	20	59 38	58 36	57 34	56 31	55 27	54 24	53 20	52 16	51 12	50 07	49 03	47 58		20		
	30	59 00	57 59	56 57	55 56	54 54	53 52	52 49	51 47	50 44	49 40	48 37	47 34		30		
	40	58 19	57 19	56 18	55 18	54 17	53 16	52 15	51 14	50 13	49 11	48 09	47 06		40		
	50	57 36	56 37	55 39	54 39	53 40	52 40	51 39	50 39	49 39	48 39	47 38	46 37		50		
6	00	56 52	55 53	54 55	53 57	52 59	52 00	51 01	50 02	49 02	48 03	47 03	46 04	6	00		
	10	56 04	55 07	54 10	53 13	52 16	51 18	50 20	49 23	48 24	47 25	46 27	45 28		10		
	20	55 15	54 19	53 22	52 26	51 30	50 33	49 37	48 40	47 42	46 45	45 48	44 50		20		
	30	54 23	53 28	52 33	51 38	50 42	49 47	48 50	47 55	46 59	46 02	45 06	44 09		30		
	40	53 29	52 35	51 41	50 46	49 52	48 57	48 03	47 08	46 13	45 17	44 22	43 27		40		
	50	52 33	51 40	50 46	49 53	49 00	48 05	47 12	46 19	45 24	44 30	43 36	42 41		50		
7	00	51 34	50 42	49 50	48 57	48 04	47 11	46 19	45 26	44 33	43 39	42 47	41 53	7	00		
	10	50 33	49 41	48 49	47 58	47 06	46 14	45 23	44 31	43 39	42 47	41 54	41 02		10		
	20	49 29	48 38	47 48	46 57	46 06	45 16	44 25	43 34	42 43	41 51	41 00	40 09		20		
	30	48 23	47 33	46 43	45 53	45 04	44 14	43 24	42 34	41 44	40 54	40 04	39 14		30		
	40	47 14	46 25	45 37	44 48	43 59	43 09	42 21	41 32	40 43	39 53	39 05	38 16		40		
	50	46 02	45 14	44 26	43 38	42 50	42 02	41 15	40 27	39 39	38 51	38 04	37 16		50		
8	00	44 47	44 00	43 14	42 26	41 40	40 53	40 06	39 19	38 33	37 46	36 59	36 13	8	00		
	10	43 30	42 44	41 58	41 12	40 26	39 40	38 55	38 09	37 23	36 38	35 53	35 07		10		
	20	42 10	41 25	40 40	39 55	39 10	38 25	37 40	36 56	36 11	35 27	34 43	33 59		20		
	30	40 47	40 03	39 18	38 35	37 51	37 07	36 24	35 41	34 57	34 14	33 31	32 48		30		
	40	39 20	38 37	37 55	37 11	36 29	35 47	35 04	34 22	33 41	32 59	32 17	31 36		40		
	50	37 50	37 08	36 25	35 44	35 04	34 24	33 42	33 01	32 21	31 40	31 00	30 20		50		
9	00	36 17	35 37	34 57	34 16	33 36	32 56	32 17	31 38	30 59	30 19	29 41	29 02	9	00		
	10	34 41	34 02	33 22	32 44	32 06	31 27	30 49	30 12	29 33	28 55	28 19	27 42		10		
	20	33 02	32 23	31 46	31 09	30 32	29 55	29 18	28 42	28 06	27 30	26 55	26 19		20		
	30	31 18	30 42	30 06	29 30	28 56	28 21	27 45	27 11	26 35	26 02	25 28	24 54		30		
	40	29 33	28 58	28 23	27 49	27 15	26 41	26 09	25 36	25 03	24 31	23 59	23 27		40		
	50	27 43	27 10	26 38	26 06	25 33	25 01	24 30	23 59	23 28	22 57	22 27	21 57		50		
10	00	25 50	25 19	24 48	24 18	23 48	23 18	22 48	22 20	21 50	21 21	20 53	20 25	10	00		
	10	23 55	23 25	22 56	22 28	22 00	21 32	21 05	20 37	20 11	19 44	19 18	18 51		10		
	20	21 56	21 28	21 02	20 36	20 09	19 44	19 18	18 53	18 29	18 04	17 40	17 15		20		
	30	19 53	19 28	19 04	18 40	18 17	17 53	17 29	17 06	16 43	16 21	15 59	15 37		30		
	40	17 48	17 26	17 04	16 43	16 21	15 59	15 38	15 18	14 57	14 37	14 18	13 58		40		
	50	15 41	15 22	15 02	14 42	14 23	14 04	13 46	13 28	13 10	12 52	12 34	12 16		50		
11	00	13 31	13 14	12 57	12 40	12 24	12 07	11 51	11 36	11 20	11 04	10 49	10 34	11	00		
	10	11 20	11 05	10 51	10 36	10 22	10 09	9 56	9 42	9 29	9 16	9 03	8 51		10		
	20	9 05	8 54	8 43	8 31	8 20	8 09	7 59	7 47	7 37	7 26	7 15	7 06		20		
	30	6 50	6 42	6 33	6 25	6 16	6 08	5 59	5 52	5 43	5 35	5 28	5 20		30		
	40	4 35	4 28	4 22	4 17	4 11	4 06	4 00	3 55	3 49	3 44	3 39	3 34		40		
	50	2 17	2 15	2 12	2 09	2 06	2 03	2 00	1 58	1 55	1 52	1 50	1 47		50		
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00		

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 26°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 26°.		
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.			
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	4 27	4 11	3 57	3 43	3 31	3 19	3 07	2 57	2 47	2 38	2 30	2 22		10		
	20	8 49	8 18	7 50	7 22	6 58	6 35	6 13	5 52	5 33	5 16	4 59	4 42		20		
	30	13 02	12 17	11 35	10 56	10 20	9 46	9 14	8 44	8 16	7 50	7 24	7 01		30		
	40	17 03	16 05	15 12	14 21	13 35	12 51	12 10	11 31	10 55	10 20	9 48	9 16		40		
	50	20 46	19 39	18 35	17 36	16 40	15 48	14 59	14 12	13 28	12 46	12 05	11 27		50		
1	00	24 14	22 59	21 47	20 39	19 35	18 36	17 39	16 44	15 53	15 05	14 19	13 34	1	00		
	10	27 23	26 01	24 43	23 30	22 19	21 13	20 10	19 09	18 12	17 17	16 25	15 36		10		
	20	30 15	28 48	27 25	26 06	24 51	23 39	22 31	21 25	20 23	19 23	18 26	17 31		20		
	30	32 50	31 19	29 53	28 30	27 11	25 55	24 43	23 32	22 25	21 22	20 20	19 20		30		
	40	35 06	33 34	32 05	30 40	29 18	27 59	26 43	25 29	24 19	23 12	22 06	21 02		40		
	50	37 09	35 35	34 05	32 38	31 13	29 52	28 34	27 18	26 05	24 54	23 45	22 38		50		
2	00	38 57	37 23	35 53	34 24	32 59	31 35	30 15	28 57	27 41	26 28	25 17	24 07	2	00		
	10	40 31	38 58	37 27	35 58	34 32	33 08	31 46	30 27	29 10	27 55	26 42	25 30		10		
	20	41 54	40 22	38 51	37 22	35 56	34 32	33 09	31 48	30 31	29 14	27 59	26 46		20		
	30	43 07	41 35	40 04	38 37	37 11	35 46	34 23	33 02	31 44	30 26	29 10	27 56		30		
	40	44 08	42 39	41 10	39 42	38 16	36 52	35 29	34 09	32 49	31 31	30 15	29 00		40		
	50	45 01	43 33	42 05	40 40	39 14	37 51	36 28	35 07	33 48	32 30	31 13	29 57		50		
3	00	45 46	44 19	42 53	41 28	40 04	38 41	37 20	35 59	34 40	33 22	32 05	30 49	3	00		
	10	46 24	44 59	43 34	42 11	40 48	39 25	38 05	36 46	35 26	34 08	32 51	31 34		10		
	20	46 54	45 32	44 09	42 47	41 24	40 04	38 44	37 24	36 05	34 48	33 31	32 15		20		
	30	47 19	45 58	44 36	43 16	41 55	40 35	39 16	37 58	36 40	35 23	34 06	32 50		30		
	40	47 39	46 19	44 59	43 39	42 20	41 02	39 44	38 26	37 10	35 53	34 37	33 21		40		
	50	47 52	46 34	45 16	43 58	42 40	41 23	40 06	38 50	37 34	36 18	35 03	33 48		50		
4	00	48 01	46 45	45 28	44 12	42 55	41 39	40 23	39 08	37 52	36 38	35 23	34 09	4	00		
	10	48 06	46 51	45 36	44 21	43 06	41 51	40 37	39 22	38 08	36 54	35 40	34 27		10		
	20	48 06	46 53	45 39	44 26	43 12	41 58	40 45	39 32	38 18	37 05	35 53	34 39		20		
	30	48 02	46 51	45 39	44 27	43 14	42 01	40 49	39 37	38 25	37 13	36 01	34 49		30		
	40	47 55	46 45	45 34	44 24	43 12	42 01	40 50	39 39	38 28	37 17	36 06	34 55		40		
	50	47 45	46 36	45 26	44 17	43 07	41 58	40 48	39 38	38 28	37 18	36 08	34 58		50		
5	00	47 30	46 23	45 14	44 07	42 58	41 50	40 41	39 32	38 23	37 15	36 05	34 57	5	00		
	10	47 13	46 07	45 00	43 53	42 46	41 39	40 31	39 24	38 16	37 08	36 00	34 52		10		
	20	46 52	45 48	44 43	43 36	42 31	41 24	40 18	39 12	38 05	36 59	35 52	34 44		20		
	30	46 30	45 26	44 21	43 17	42 12	41 07	40 03	38 57	37 52	36 46	35 41	34 34		30		
	40	46 03	45 01	43 57	42 54	41 51	40 47	39 43	38 39	37 35	36 31	35 26	34 21		40		
	50	45 34	44 33	43 31	42 29	41 26	40 25	39 22	38 19	37 15	36 12	35 08	34 05		50		
6	00	45 03	44 03	43 02	42 01	40 59	39 58	38 56	37 55	36 53	35 51	34 48	33 46	6	00		
	10	44 28	43 29	42 29	41 30	40 30	39 30	38 30	37 29	36 28	35 27	34 25	33 24		10		
	20	43 52	42 54	41 55	40 57	39 58	38 59	38 00	37 00	36 00	35 01	34 01	33 02		20		
	30	43 12	42 15	41 18	40 21	39 23	38 25	37 27	36 28	35 31	34 32	33 32	32 33		30		
	40	42 30	41 35	40 39	39 42	38 46	37 49	36 52	35 55	34 58	34 00	33 02	32 03		40		
	50	41 46	40 52	39 57	39 01	38 05	37 10	36 15	35 19	34 23	33 26	32 29	31 32		50		
7	00	40 59	40 06	39 12	38 18	37 24	36 29	35 35	34 39	33 44	32 49	31 54	30 58	7	00		
	10	40 10	39 18	38 24	37 31	36 38	35 45	34 52	33 59	33 04	32 10	31 16	30 22		10		
	20	39 17	38 26	37 35	36 43	35 51	34 59	34 07	33 15	32 22	31 29	30 37	29 43		20		
	30	38 23	37 33	36 43	35 53	35 01	34 10	33 20	32 28	31 38	30 46	29 55	29 03		30		
	40	37 27	36 38	35 48	34 59	34 09	33 19	32 30	31 40	30 51	30 01	29 10	28 20		40		
	50	36 27	35 40	34 51	34 03	33 15	32 27	31 38	30 50	30 02	29 13	28 24	27 35		50		
8	00	35 25	34 39	33 52	33 06	32 18	31 32	30 44	29 57	29 10	28 23	27 35	26 47	8	00		
	10	34 21	33 36	32 51	32 05	31 20	30 34	29 48	29 03	28 17	27 30	26 45	25 58		10		
	20	33 15	32 31	31 47	31 02	30 18	29 34	28 50	28 05	27 21	26 37	25 51	25 07		20		
	30	32 06	31 23	30 40	29 57	29 15	28 32	27 49	27 06	26 23	25 40	24 57	24 15		30		
	40	30 54	30 13	29 31	28 50	28 09	27 27	26 45	26 04	25 23	24 41	24 00	23 19		40		
	50	29 42	29 01	28 21	27 41	27 00	26 21	25 41	25 01	24 21	23 42	23 02	22 22		50		
9	00	28 23	27 45	27 07	26 29	25 50	25 11	24 34	23 56	23 18	22 40	22 01	21 23	9	00		
	10	27 04	26 28	25 51	25 14	24 37	24 01	23 25	22 48	22 12	21 35	20 59	20 22		10		
	20	25 44	25 08	24 34	23 58	23 23	22 49	22 14	21 39	21 04	20 30	19 55	19 20		20		
	30	24 20	23 46	23 14	22 40	22 06	21 34	21 01	20 27	19 55	19 22	18 49	18 16		30		
	40	22 55	22 23	21 52	21 20	20 48	20 17	19 46	19 15	18 44	18 13	17 42	17 11		40		
	50	21 26	20 57	20 27	19 57	19 28	18 59	18 29	18 00	17 32	17 02	16 33	16 04		50		
10	00	19 56	19 29	19 01	18 34	18 06	17 39	17 11	16 44	16 17	15 49	15 22	14 55	10	00		
	10	18 24	17 59	17 33	17 08	16 42	16 16	15 51	15 26	15 01	14 36	14 11	13 46		10		
	20	16 51	16 28	16 03	15 40	15 17	14 53	14 30	14 06	13 44	13 21	12 58	12 35		20		
	30	15 15	14 53	14 32	14 11	13 49	13 28	13 07	12 46	12 25	12 04	11 44	11 23		30		
	40	13 38	13 19	12 59	12 40	12 21	12 02	11 43	11 25	11 05	10 47	10 29	10 10		40		
	50	11 59	11 42	11 25	11 08	10 51	10 34	10 18	10 01	9 45	9 28	9 12	8 55		50		
11	00	10 19	10 04	9 50	9 35	9 20	9 06	8 51	8 37	8 23	8 09	7 55	7 41	11	00		
	10	8 37	8 25	8 13	8 01	7 48	7 36	7 24	7 12	7 01	6 49	6 36	6 25		10		
	20	6 55	6 45	6 36	6 26	6 16	6 06	5 56	5 47	5 37	5 28	5 19	5 09		20		
	30	5 12	5 04	4 58	4 50	4 43	4 35	4 28	4 21	4 14	4 07	3 59	3 52		30		
	40	3 28	3 23	3 18	3 13	3 09	3 04	2 59	2 54	2 50	2 44	2 39	2 35		40		
	50	1 44	1 42	1 39	1 37	1 34	1 32	1 29	1 27	1 24	1 22	1 20	1 17		50		
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00		

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of

AZIMUTH OR TRUE BEARING.

LATITUDE 26°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 26°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	2 16	2 07	1 59	1 53	1 47	1 41	1 34	1 29	1 24	1 19	1 14		10	
	20	4 27	4 13	3 58	3 45	3 33	3 21	3 09	2 58	2 48	2 37	2 28		20	
	30	6 38	6 17	5 57	5 37	5 18	5 00	4 43	4 26	4 11	3 55	3 41		30	
	40	8 47	8 18	7 52	7 26	7 01	6 38	6 15	5 54	5 32	5 12	4 52		40	
	50	10 51	10 17	9 44	9 12	8 42	8 13	7 45	7 18	6 52	6 27	6 03		50	
1	00	12 52	12 11	11 32	10 56	10 20	9 46	9 13	8 41	8 11	7 41	7 13	1	00	
	10	14 47	14 02	13 18	12 36	11 55	11 16	10 39	10 02	9 28	8 53	8 20		10	
	20	16 38	15 48	14 59	14 12	13 26	12 43	12 01	11 20	10 41	10 03	9 26		20	
	30	18 23	17 28	16 35	15 43	14 54	14 06	13 20	12 35	11 53	11 11	10 30		30	
	40	20 02	19 03	18 06	17 11	16 18	15 27	14 37	13 48	13 02	12 16	11 31		40	
	50	21 34	20 32	19 32	18 33	17 37	16 43	15 49	14 57	14 07	13 19	12 30		50	
2	00	23 01	21 56	20 53	19 52	18 52	17 54	16 57	16 04	15 10	14 18	13 28	2	00	
	10	24 21	23 14	22 09	21 05	20 02	19 02	18 02	17 05	16 09	15 15	14 21		10	
	20	25 36	24 27	23 19	22 12	21 08	20 05	19 04	18 04	17 06	16 08	15 12		20	
	30	26 43	25 33	24 23	23 16	22 09	21 05	20 01	18 59	17 59	16 59	16 01		30	
	40	27 46	26 34	25 24	24 14	23 06	22 00	21 54	19 50	18 48	17 47	16 46		40	
	50	28 43	27 29	26 18	25 07	23 58	22 50	21 43	20 38	19 34	18 31	17 28		50	
3	00	29 34	28 20	27 07	25 56	24 46	23 37	22 28	21 22	20 17	19 12	18 08	3	00	
	10	30 20	29 08	27 53	26 40	25 29	24 19	23 10	22 03	20 56	19 50	18 44		10	
	20	31 00	29 46	28 32	27 20	26 08	24 58	23 48	22 40	21 31	20 24	19 17		20	
	30	31 35	30 21	29 08	27 55	26 43	25 32	24 22	23 13	22 04	20 55	19 48		30	
	40	32 07	30 52	29 39	28 26	27 15	26 03	24 52	23 42	22 33	21 24	20 16		40	
	50	32 33	31 20	30 07	28 54	27 41	26 30	25 19	24 09	22 59	21 49	20 41		50	
4	00	32 55	31 42	30 29	29 17	28 05	26 53	25 41	24 32	23 22	22 12	21 03	4	00	
	10	33 14	32 01	30 49	29 36	28 24	27 13	26 02	24 52	23 42	22 31	21 22		10	
	20	33 28	32 15	31 03	29 51	28 41	27 29	26 18	25 07	23 58	22 48	21 38		20	
	30	33 38	32 26	31 15	30 04	28 53	27 42	26 31	25 21	24 11	23 02	21 52		30	
	40	33 45	32 34	31 23	30 12	29 02	27 52	26 41	25 32	24 23	23 13	22 03		40	
	50	33 48	32 38	31 28	30 18	29 09	27 59	26 49	25 40	24 30	23 21	22 12		50	
5	00	33 48	32 39	31 30	30 20	29 11	28 03	26 53	25 44	24 36	23 26	22 17	5	00	
	10	33 44	32 36	31 28	30 19	29 12	28 03	26 54	25 46	24 38	23 30	22 21		10	
	20	33 38	32 31	31 23	30 16	29 09	28 00	26 53	25 45	24 38	23 30	22 22		20	
	30	33 29	32 22	31 15	30 09	29 02	27 56	26 48	25 42	24 35	23 28	22 21		30	
	40	33 16	32 11	31 05	29 59	28 55	27 49	26 42	25 36	24 30	23 24	22 17		40	
	50	33 01	31 57	30 52	29 47	28 43	27 38	26 33	25 28	24 22	23 16	22 11		50	
6	00	32 43	31 40	30 36	29 33	28 30	27 25	26 21	25 17	24 13	23 08	22 02	6	00	
	10	32 23	31 21	30 18	29 16	28 13	27 10	26 07	25 03	24 00	22 56	21 53		10	
	20	32 00	30 59	29 58	28 56	27 54	26 52	25 50	24 48	23 46	22 43	21 40		20	
	30	31 34	30 34	29 34	28 34	27 34	26 33	25 34	24 30	23 28	22 27	21 26		30	
	40	31 05	30 07	29 08	28 09	27 10	26 10	25 10	24 11	23 11	22 10	21 09		40	
	50	30 36	29 38	28 41	27 43	26 44	25 46	24 47	23 48	22 50	21 50	20 50		50	
7	00	30 03	29 06	28 10	27 13	26 17	25 20	24 22	23 24	22 27	21 29	20 30	7	00	
	10	29 27	28 33	27 37	26 42	25 47	24 51	23 55	22 59	22 02	21 06	20 08		10	
	20	28 50	27 57	27 03	26 09	25 15	24 21	23 26	22 31	21 36	20 40	19 44		20	
	30	28 11	27 19	26 26	25 34	24 41	23 48	22 54	22 00	21 07	20 13	19 18		30	
	40	27 29	26 39	25 48	24 56	24 05	23 13	22 21	21 29	20 37	19 44	18 51		40	
	50	26 46	25 56	25 06	24 16	23 27	22 37	21 46	20 56	20 05	19 14	18 22		50	
8	00	25 59	25 12	24 23	23 36	22 47	21 59	21 09	20 20	19 32	18 42	17 51	8	00	
	10	25 12	24 25	23 39	22 52	22 05	21 18	20 31	19 43	18 56	18 07	17 19		10	
	20	24 23	23 37	22 53	22 08	21 22	20 37	19 50	19 05	18 19	17 32	16 45		20	
	30	23 31	22 48	22 04	21 20	20 37	19 53	19 08	18 24	17 40	16 55	16 10		30	
	40	22 37	21 56	21 13	20 32	19 50	19 08	18 25	17 42	17 00	16 17	15 34		40	
	50	21 41	21 02	20 22	19 41	19 01	18 21	17 39	16 59	16 19	15 37	14 56		50	
9	00	20 45	20 07	19 28	18 49	18 11	17 33	16 53	16 14	15 35	14 56	14 17	9	00	
	10	19 46	19 10	18 33	17 56	17 19	16 43	16 06	15 29	14 51	14 13	13 36		10	
	20	18 45	18 11	17 36	17 01	16 26	15 51	15 16	14 41	14 05	13 30	12 55		20	
	30	17 43	17 10	16 38	16 05	15 32	14 59	14 26	13 52	13 19	12 46	12 11		30	
	40	16 40	16 09	15 38	15 07	14 36	14 05	13 34	13 02	12 32	12 00	11 27		40	
	50	15 35	15 06	14 37	14 07	13 39	13 10	12 41	12 12	11 43	11 13	10 43		50	
10	00	14 29	14 02	13 35	13 08	12 41	12 14	11 46	11 19	10 52	10 25	9 57	10	00	
	10	13 21	12 57	12 31	12 06	11 41	11 16	10 51	10 26	10 01	9 36	9 11		10	
	20	12 12	11 50	11 27	11 04	10 41	10 18	9 55	9 33	9 09	8 47	8 23		20	
	30	11 02	10 42	10 21	10 01	9 40	9 19	8 58	8 37	8 17	7 56	7 35		30	
	40	9 51	9 33	9 14	8 56	8 38	8 19	8 00	7 42	7 23	7 05	6 46		40	
	50	8 40	8 23	8 07	7 51	7 35	7 18	7 02	6 45	6 30	6 14	5 56		50	
11	00	7 26	7 13	6 59	6 45	6 31	6 17	6 02	5 49	5 35	5 21	5 07	11	00	
	10	6 14	6 02	5 50	5 39	5 27	5 15	5 03	4 52	4 40	4 28	4 16		10	
	20	5 00	4 50	4 41	4 31	4 22	4 13	4 03	3 54	3 44	3 35	3 26		20	
	30	3 45	3 38	3 31	3 24	3 17	3 10	3 03	2 55	2 49	2 42	2 35		30	
	40	2 30	2 26	2 21	2 16	2 11	2 07	2 02	1 58	1 52	1 48	1 43		40	
	50	1 15	1 13	1 11	1 08	1 05	1 03	1 01	0 59	0 57	0 54	0 52		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 27°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 27°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	°	'	°	'	°	'	°	'	°	'	°	'	h.	m.
0	00	180 00	180 00	180 00	...	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	142 30	131 07	113 31	89 26	65 09	47 15	35 38	28 04	22 55	19 13	16 29	14 22		10
	20	122 31	112 53	101 28	88 52	76 09	64 28	54 30	46 22	39 50	34 30	30 22	26 56		20
	30	112 15	104 51	96 48	88 18	79 44	71 27	63 46	56 51	50 45	45 26	40 51	36 55		30
	40	106 11	100 18	94 07	87 44	81 16	74 55	68 49	63 03	57 44	52 51	48 27	44 30		40
	50	102 08	97 18	92 17	87 09	81 58	76 49	71 47	66 56	62 20	57 59	53 55	50 09		50
1	00	99 10	95 05	90 52	86 35	82 15	77 56	73 39	69 29	65 26	61 34	57 52	54 24	1	00
	10	96 52	93 19	89 41	86 00	82 17	78 33	74 51	71 12	67 38	64 10	60 48	57 35		10
	20	95 00	91 52	88 40	85 25	82 09	78 52	75 36	72 22	69 10	66 02	62 59	60 02		20
	30	93 24	90 36	87 44	84 50	81 55	78 59	76 04	73 09	70 16	67 25	64 37	61 53		30
	40	92 00	89 27	86 52	84 15	81 37	78 57	76 19	73 40	71 02	68 25	65 51	63 19		40
	50	90 45	88 25	86 03	83 40	81 15	78 50	76 24	73 58	71 32	69 08	66 45	64 24		50
2	00	89 36	87 27	85 16	83 04	80 51	78 37	76 22	74 08	71 53	69 38	67 25	65 13	2	00
	10	88 32	86 32	84 30	82 28	80 24	78 19	76 15	74 09	72 05	69 59	67 54	65 51		10
	20	87 31	85 39	83 46	81 51	79 56	78 00	76 03	74 05	72 08	70 11	68 13	66 17		20
	30	86 34	84 48	83 02	81 14	79 26	77 37	75 47	73 57	72 06	70 15	68 25	66 35		30
	40	85 38	83 59	82 19	80 37	78 55	77 11	75 28	73 44	72 00	70 14	68 30	66 45		40
	50	84 46	83 11	81 35	79 59	78 22	76 44	75 06	73 27	71 48	70 09	68 29	66 50		50
3	00	83 53	82 23	80 53	79 21	77 48	76 16	74 42	73 08	71 34	69 59	68 24	66 49	3	00
	10	83 02	81 37	80 10	78 42	77 14	75 46	74 16	72 46	71 16	69 45	68 14	66 43		10
	20	82 13	80 50	79 27	78 03	76 38	75 13	73 48	72 22	70 55	69 28	68 02	66 34		20
	30	81 23	80 03	78 43	77 23	76 01	74 40	73 18	71 55	70 32	69 09	67 44	66 21		30
	40	80 33	79 17	77 59	76 42	75 24	74 06	72 47	71 27	70 07	68 46	67 25	66 04		40
	50	79 44	78 30	77 16	76 01	74 45	73 29	72 13	70 56	69 39	68 21	67 03	65 45		50
4	00	78 55	77 43	76 31	75 19	74 05	72 52	71 39	70 24	69 09	67 54	66 38	65 23	4	00
	10	78 05	76 56	75 46	74 36	73 25	72 14	71 02	69 50	68 38	67 25	66 11	64 58		10
	20	77 16	76 09	75 01	73 52	72 43	71 34	70 24	69 14	68 04	66 53	65 42	64 31		20
	30	76 26	75 20	74 14	73 08	72 00	70 53	69 46	68 37	67 29	66 20	65 11	64 01		30
	40	75 35	74 31	73 27	72 22	71 17	70 11	69 05	67 58	66 52	65 45	64 37	63 30		40
	50	74 45	73 41	72 39	71 36	70 32	69 27	68 23	67 18	66 13	65 07	64 02	62 56		50
5	00	73 53	72 51	71 50	70 48	69 45	68 42	67 40	66 36	65 33	64 29	63 24	62 20	5	00
	10	73 00	72 00	71 00	69 59	68 58	67 56	66 54	65 52	64 51	63 48	62 45	61 42		10
	20	72 07	71 08	70 09	69 09	68 09	67 09	66 08	65 08	64 07	63 06	62 04	61 03		20
	30	71 13	70 14	69 16	68 18	67 18	66 20	65 20	64 21	63 22	62 21	61 21	60 20		30
	40	70 17	69 20	68 23	67 25	66 27	65 29	64 30	63 32	62 34	61 35	60 36	59 37		40
	50	69 20	68 24	67 27	66 31	65 34	64 37	63 40	62 42	61 45	60 47	59 49	58 50		50
6	00	68 22	67 27	66 31	65 35	64 39	63 43	62 47	61 50	60 54	59 57	59 00	58 03	6	00
	10	67 22	66 27	65 32	64 36	63 40	62 44	61 52	60 56	60 00	59 04	58 08	57 12		10
	20	66 21	65 27	64 33	63 39	62 45	61 50	60 55	60 00	59 06	58 11	57 15	56 20		20
	30	65 20	64 25	63 31	62 38	61 44	60 50	59 57	59 03	58 09	57 15	56 21	55 26		30
	40	64 14	63 21	62 28	61 35	60 42	59 49	58 56	58 03	57 10	56 16	55 23	54 30		40
	50	63 07	62 15	61 23	60 30	59 38	58 45	57 53	57 01	56 09	55 16	54 24	53 31		50
7	00	61 59	61 07	60 15	59 24	58 32	57 40	56 48	55 57	55 05	54 13	53 21	52 30	7	00
	10	60 47	59 56	59 06	58 14	57 23	56 32	55 41	54 49	53 59	53 08	52 17	51 26		10
	20	59 34	58 44	57 53	57 03	56 12	55 21	54 31	53 41	52 51	52 01	51 11	50 20		20
	30	58 19	57 29	56 38	55 49	54 58	54 08	53 20	52 29	51 40	50 50	50 02	49 11		30
	40	57 01	56 11	55 21	54 32	53 42	52 53	52 05	51 16	50 27	49 38	48 49	48 01		40
	50	55 38	54 50	54 01	53 12	52 23	51 35	50 47	49 59	49 10	48 22	47 34	46 47		50
8	00	54 14	53 26	52 37	51 49	51 01	50 14	49 26	48 38	47 52	47 04	46 16	45 31	8	00
	10	52 47	51 59	51 11	50 24	49 36	48 49	48 03	47 16	46 29	45 43	44 56	44 11		10
	20	51 16	50 29	49 41	48 55	48 08	47 22	46 36	45 50	45 04	44 19	43 33	42 48		20
	30	49 41	48 55	48 09	47 22	46 36	45 50	45 06	44 20	43 36	42 52	42 07	41 23		30
	40	48 04	47 17	46 32	45 46	45 01	44 16	43 32	42 48	42 05	41 21	40 37	39 55		40
	50	46 21	45 35	44 51	44 07	43 22	42 38	41 55	41 12	40 30	39 48	39 05	38 23		50
9	00	44 34	43 50	43 06	42 23	41 40	40 57	40 15	39 32	38 52	38 10	37 29	36 48	9	00
	10	42 44	42 00	41 17	40 35	39 53	39 12	38 30	37 50	37 10	36 29	35 49	35 10		10
	20	40 48	40 06	39 25	38 44	38 03	37 22	36 43	36 03	35 24	34 45	34 07	33 29		20
	30	38 49	38 08	37 27	36 47	36 08	35 29	34 50	34 12	33 36	32 58	32 21	31 45		30
	40	36 44	36 04	35 26	34 47	34 09	33 31	32 55	32 18	31 43	31 07	30 31	29 57		40
	50	34 35	33 56	33 19	32 42	32 06	31 30	30 55	30 20	29 46	29 11	28 38	28 05		50
10	00	32 21	31 44	31 08	30 33	29 59	29 25	28 52	28 18	27 46	27 13	26 42	26 11	10	00
	10	30 00	29 26	28 53	28 20	27 47	27 14	26 43	26 12	25 42	25 13	24 42	24 12		10
	20	27 37	27 05	26 32	26 02	25 32	25 02	24 32	24 04	23 35	23 07	22 39	22 12		20
	30	25 08	24 37	24 09	23 40	23 11	22 44	22 18	21 51	21 25	20 59	20 34	20 08		30
	40	22 34	22 06	21 40	21 14	20 48	20 23	19 58	19 34	19 11	18 47	18 24	18 02		40
	50	19 55	19 31	19 07	18 44	18 21	17 59	17 36	17 15	16 55	16 33	16 13	15 53		50
11	00	17 13	16 52	16 30	16 10	15 51	15 31	15 11	14 53	14 34	14 17	13 59	13 41	11	00
	10	14 27	14 08	13 52	13 34	13 17	13 01	12 44	12 28	12 13	11 57	11 42	11 28		10
	20	11 38	11 23	11 09	10 55	10 41	10 27	10 14	10 01	9 49	9 37	9 25	9 13		20
	30	8 46	8 34	8 23	8 13	8 03	7 53	7 42	7 33	7 24	7 13	7 05	6 56		30
	40	5 51	5 44	5 37	5 30	5 22	5 16	5 10	5 03	4 56	4 50	4 43	4 38		40
	50	2 56	2 53	2 49	2 45	2 41	2 38	2 35	2 32	2 28	2 25	2 22	2 19		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

LATITUDE 27°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 27°.		
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.			
h.	m.	0	1	2	3	4	5	6	7	8	9	10	11	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	12 42	11 19	10 11	9 15	8 26	7 45	7 08	6 36	6 07	5 41	5 19	4 58	1	00		
	20	24 05	21 41	19 40	17 56	16 27	15 09	13 59	12 58	12 03	11 15	10 30	9 49		10		
	30	33 30	30 32	27 56	25 41	23 43	21 55	20 20	18 56	17 39	16 30	15 26	14 28		20		
	40	40 56	37 45	34 53	32 19	30 01	27 57	26 03	24 21	22 48	21 22	20 04	18 51		30		
	50	46 41	43 29	40 33	37 53	35 25	33 09	31 05	29 10	27 25	25 48	24 18	22 54		40		
1	00	51 06	48 01	45 08	42 27	39 56	37 37	35 26	33 24	31 32	29 46	28 08	26 35	1	00		
	10	54 31	51 35	48 48	46 11	43 42	41 22	39 10	37 04	35 07	33 18	31 34	29 55		10		
	20	57 10	54 24	51 46	49 14	46 48	44 31	42 19	40 14	38 15	36 23	34 35	32 53		20		
	30	59 14	56 39	54 08	51 43	49 23	47 08	44 59	42 56	40 57	39 04	37 16	35 31		30		
	40	60 50	58 24	56 03	53 45	51 30	49 20	47 15	45 13	43 16	41 24	39 35	37 50		40		
	50	62 06	59 48	57 34	55 23	53 14	51 09	49 08	47 09	45 14	43 24	41 36	39 52		50		
2	00	63 03	60 54	58 47	56 43	54 40	52 40	50 43	48 49	46 56	45 08	43 22	41 38	2	00		
	10	63 48	61 46	59 46	57 47	55 49	53 54	52 02	50 11	48 22	46 37	44 52	43 10		10		
	20	64 21	62 26	60 32	58 38	56 46	54 56	53 07	51 20	49 35	47 51	46 10	44 30		20		
	30	64 45	62 55	61 06	59 18	57 31	55 45	54 01	52 18	50 36	48 55	47 16	45 38		30		
	40	65 01	63 16	61 33	59 50	58 07	56 26	54 44	53 05	51 26	49 49	48 12	46 37		40		
	50	65 10	63 31	61 51	60 13	58 34	56 57	55 19	53 43	52 06	50 32	48 58	47 25		50		
3	00	65 14	63 39	62 03	60 28	58 54	57 20	55 46	54 13	52 40	51 08	49 36	48 06	3	00		
	10	65 12	63 40	62 09	60 38	59 07	57 37	56 06	54 35	53 06	51 36	50 07	48 39		10		
	20	65 06	63 38	62 10	60 42	59 15	57 47	56 19	54 52	53 25	51 58	50 31	49 06		20		
	30	64 56	63 32	62 07	60 42	59 17	57 52	56 28	55 03	53 38	52 15	50 50	49 26		30		
	40	64 43	63 21	61 59	60 37	59 15	57 53	56 31	55 09	53 47	52 25	51 03	49 41		40		
	50	64 26	63 07	61 48	60 29	59 09	57 49	56 30	55 10	53 50	52 30	51 10	49 51		50		
4	00	64 07	62 50	61 34	60 16	58 59	57 42	56 25	55 07	53 49	52 31	51 13	49 56	4	00		
	10	63 44	62 29	61 16	60 01	58 59	57 30	56 15	55 00	53 44	52 29	51 13	49 56		10		
	20	63 19	62 07	60 54	59 42	58 29	57 15	56 02	54 49	53 35	52 21	51 07	49 53		20		
	30	62 52	61 41	60 31	59 20	58 09	56 58	55 47	54 35	53 23	52 11	50 59	49 45		30		
	40	62 22	61 13	60 05	58 55	57 47	56 37	55 27	54 18	53 07	51 57	50 45	49 35		40		
	50	61 50	60 43	59 36	58 28	57 21	56 13	55 06	53 57	52 48	51 40	50 30	49 21		50		
5	00	61 16	60 10	59 04	57 58	56 53	55 46	54 40	53 33	52 26	51 18	50 11	49 04	5	00		
	10	60 39	59 35	58 31	57 26	56 22	55 17	54 12	53 07	52 01	50 55	49 49	48 42		10		
	20	60 01	58 58	57 55	56 52	55 50	54 46	53 43	52 38	51 33	50 29	49 24	48 19		20		
	30	59 20	58 18	57 17	56 16	55 13	54 11	53 09	52 06	51 03	50 00	48 56	47 53		30		
	40	58 37	57 37	56 37	55 36	54 35	53 35	52 34	51 33	50 31	49 29	48 26	47 24		40		
	50	57 53	56 53	55 55	54 55	53 56	52 56	51 56	50 56	49 56	48 55	47 54	46 53		50		
6	00	57 05	56 07	55 09	54 12	53 13	52 14	51 16	50 16	49 18	48 18	47 18	46 18	6	00		
	10	56 16	55 19	54 22	53 25	52 28	51 30	50 33	49 35	48 36	47 39	46 40	45 41		10		
	20	55 25	54 29	53 33	52 37	51 41	50 45	49 49	48 51	47 54	46 57	46 00	45 02		20		
	30	54 31	53 37	52 41	51 47	50 52	49 56	49 01	48 06	47 09	46 13	45 17	44 20		30		
	40	53 36	52 42	51 48	50 54	50 00	49 05	48 11	47 16	46 21	45 26	44 32	43 36		40		
	50	52 38	51 45	50 52	49 59	49 06	48 12	47 19	46 25	45 32	44 38	43 44	42 49		50		
7	00	51 38	50 45	49 54	49 01	48 09	47 17	46 24	45 31	44 38	43 46	42 53	42 00	7	00		
	10	50 34	49 43	48 53	48 02	47 10	46 19	45 28	44 36	43 44	42 52</						

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 27°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 27°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	4 39	4 22	4 06	3 52	3 38	3 25	3 14	3 03	2 53	2 43	2 34	2 26	0	10
0	20	9 13	8 39	8 08	7 40	7 13	6 48	6 26	6 04	5 44	5 25	5 07	4 51	0	20
0	30	13 37	12 48	12 02	11 21	10 42	10 06	9 33	9 01	8 32	8 03	7 37	7 12	0	30
0	40	17 45	16 44	15 46	14 53	14 04	13 18	12 34	11 53	11 14	10 38	10 03	9 31	0	40
0	50	21 37	20 24	19 17	18 14	17 15	16 19	15 27	14 38	13 51	13 07	12 26	11 45	0	50
1	00	25 09	23 49	22 32	21 22	20 15	19 11	18 11	17 15	16 21	15 29	14 41	13 55	1	00
1	10	28 23	26 55	25 33	24 16	23 01	21 52	20 45	19 43	18 42	17 46	16 51	15 59	1	10
1	20	31 17	29 45	28 18	26 55	25 36	24 21	23 09	22 01	20 56	19 53	18 53	17 56	1	20
1	30	33 53	32 17	30 47	29 20	27 58	26 38	25 22	24 09	23 00	21 53	20 49	19 48	1	30
1	40	36 10	34 34	33 01	31 32	30 07	28 44	27 25	26 08	24 55	23 45	22 37	21 32	1	40
1	50	38 12	36 35	35 00	33 30	32 03	30 38	29 16	27 57	26 41	25 28	24 17	23 09	1	50
2	00	39 59	38 22	36 47	35 16	33 48	32 21	30 58	29 38	28 19	27 04	25 50	24 39	2	00
2	10	41 32	39 55	38 21	36 50	35 21	33 54	32 30	31 08	29 48	28 31	27 15	26 02	2	10
2	20	42 53	41 17	39 44	38 13	36 45	35 17	33 53	32 30	31 09	29 50	28 33	27 18	2	20
2	30	44 03	42 29	40 57	39 26	37 58	36 31	35 06	33 43	32 22	31 02	29 44	28 28	2	30
2	40	45 03	43 30	41 59	40 30	39 03	37 36	36 11	34 48	33 26	32 07	30 48	29 31	2	40
2	50	45 54	44 23	42 54	41 25	39 59	38 34	37 09	35 46	34 25	33 04	31 46	30 28	2	50
3	00	46 37	45 07	43 40	42 13	40 48	39 23	37 59	36 37	35 16	33 56	32 36	31 19	3	00
3	10	47 12	45 45	44 19	42 53	41 29	40 06	38 43	37 22	36 01	34 42	33 22	32 05	3	10
3	20	47 41	46 15	44 51	43 27	42 04	40 42	39 20	38 00	36 40	35 21	34 02	32 44	3	20
3	30	48 03	46 40	45 17	43 55	42 33	41 13	39 52	38 33	37 13	35 54	34 37	33 20	3	30
3	40	48 20	46 58	45 37	44 17	42 57	41 38	40 18	39 00	37 41	36 23	35 06	33 50	3	40
3	50	48 31	47 12	45 52	44 33	43 15	41 57	40 39	39 21	38 04	36 47	35 31	34 15	3	50
4	00	48 38	47 21	46 03	44 45	43 28	42 11	40 55	39 39	38 22	37 06	35 51	34 35	4	00
4	10	48 41	47 25	46 09	44 53	43 38	42 22	41 06	39 50	38 35	37 22	36 06	34 52	4	10
4	20	48 40	47 24	46 10	44 56	43 42	42 27	41 13	39 59	38 45	37 31	36 18	35 04	4	20
4	30	48 34	47 21	46 08	44 55	43 43	42 30	41 16	40 03	38 50	37 38	36 25	35 13	4	30
4	40	48 24	47 13	46 01	44 50	43 39	42 27	41 15	40 04	38 53	37 40	36 29	35 17	4	40
4	50	48 11	47 01	45 52	44 42	43 32	42 21	41 12	40 01	38 50	37 39	36 29	35 19	4	50
5	00	47 56	46 47	45 39	44 30	43 21	42 13	41 04	39 55	38 45	37 35	36 26	35 17	5	00
5	10	47 37	46 30	45 22	44 15	43 08	42 00	40 52	39 45	38 36	37 28	36 20	35 11	5	10
5	20	47 15	46 09	45 03	43 57	42 51	41 45	40 38	39 32	38 25	37 18	36 10	35 03	5	20
5	30	46 50	45 45	44 41	43 36	42 32	41 26	40 20	39 15	38 09	37 04	35 58	34 51	5	30
5	40	46 22	45 19	44 16	43 13	42 09	41 04	40 01	38 56	37 52	36 47	35 42	34 37	5	40
5	50	45 51	44 49	43 48	42 45	41 43	40 41	39 38	38 34	37 31	36 27	35 23	34 20	5	50
6	00	45 18	44 17	43 17	42 16	41 15	40 13	39 12	38 10	37 07	36 05	35 02	33 59	6	00
6	10	44 43	43 43	42 44	41 44	40 44	39 43	38 43	37 42	36 41	35 40	34 39	33 37	6	10
6	20	44 05	43 06	42 07	41 09	40 10	39 11	38 12	37 13	36 13	35 13	34 12	33 12	6	20
6	30	43 24	42 27	41 29	40 32	39 35	38 37	37 39	36 40	35 42	34 43	33 44	32 44	6	30
6	40	42 41	41 44	40 48	39 52	38 55	37 59	37 02	36 05	35 07	34 10	33 12	32 14	6	40
6	50	41 54	41 00	40 05	39 10	38 15	37 19	36 23	35 27	34 31	33 35	32 39	31 41	6	50
7	00	41 06	40 12	39 19	38 25	37 31	36 37	35 43	34 48	33 53	32 57	32 02	31 06	7	00
7	10	40 16	39 23	38 31	37 38	36 46	35 52	34 59	34 05	33 12	32 18	31 24	30 29	7	10
7	20	39 23	38 32	37 40	36 48	35 57	35 05	34 13	33 21	32 29	31 36	30 44	29 50	7	20
7	30	38 28	37 38	36 47	35 57	35 07	34 16	33 25	32 35	31 44	30 52	30 00	29 09	7	30
7	40	37 40	36 41	35 52	35 03	34 14	33 24	32 35	31 45	30 56	30 05	29 16	28 25	7	40
7	50	36 30	35 42	34 55	34 07	33 18	32 31	31 43	30 54	30 06	29 17	28 29	27 39	7	50
8	00	35 27	34 41	33 54	33 07	32 21	31 34	30 47	30 01	29 14	28 26	27 39	26 52	8	00
8	10	34 22	33 37	32 52	32 06	31 21	30 36	29 50	29 05	28 19	27 34	26 48	26 02	8	10
8	20	33 15	32 31	31 47	31 03	30 20	29 36	28 51	28 08	27 23	26 38	25 53	25 10	8	20
8	30	32 05	31 22	30 40	29 57	29 14	28 33	27 50	27 08	26 24	25 42	24 59	24 16	8	30
8	40	30 53	30 11	29 30	28 49	28 09	27 27	26 46	26 06	25 24	24 43	24 02	23 21	8	40
8	50	29 39	28 58	28 19	27 39	27 00	26 20	25 41	25 02	24 22	23 42	23 03	22 23	8	50
9	00	28 21	27 42	27 05	26 27	25 49	25 11	24 33	23 56	23 18	22 40	22 02	21 24	9	00
9	10	27 02	26 25	25 49	25 12	24 36	24 00	23 24	22 48	22 12	21 35	20 59	20 23	9	10
9	20	25 40	25 06	24 31	23 56	23 22	22 47	22 12	21 39	21 04	20 30	19 55	19 20	9	20
9	30	24 17	23 43	23 10	22 37	22 04	21 32	20 59	20 27	19 55	19 21	18 49	18 17	9	30
9	40	22 52	22 19	21 48	21 17	20 46	20 15	19 45	19 14	18 43	18 12	17 42	17 10	9	40
9	50	21 23	20 53	20 24	19 54	19 15	18 56	18 28	17 59	17 30	17 01	16 32	16 04	9	50
10	00	19 54	19 25	18 58	18 31	18 04	17 36	17 10	16 42	16 16	15 49	15 22	14 55	10	00
10	10	18 21	17 56	17 30	17 04	16 39	16 14	15 49	15 25	14 59	14 35	14 10	13 46	10	10
10	20	16 47	16 24	16 01	15 37	15 14	14 50	14 28	14 05	13 43	13 20	12 57	12 34	10	20
10	30	15 12	14 51	14 29	14 08	13 47	13 26	13 05	12 45	12 24	12 03	11 53	11 23	10	30
10	40	13 35	13 15	12 57	12 37	12 19	12 00	11 41	11 23	11 05	10 46	10 28	10 09	10	40
10	50	11 57	11 39	11 22	11 06	10 50	10 33	10 17	10 01	9 43	9 28	9 11	8 55	10	50
11	00	10 16	10 01	9 48	9 33	9 19	9 04	8 50	8 36	8 22	8 08	7 54	7 41	11	00
11	10	8 36	8 23	8 11	7 59	7 47	7 35	7 23	7 11	6 59	6 48	6 37	6 24	11	10
11	20	6 54	6 44	6 34	6 25	6 15	6 05	5 56	5 46	5 36	5 27	5 18	5 09	11	20
11	30	5 11	5 03	4 56	4 49	4 42	4 34	4 27	4 20	4 13	4 06	3 58	3 52	11	30
11	40	3 28	3 23	3 18	3 13	3 08	3 03	2 58	2 54	2 49	2 44	2 40	2 34	11	40
11	50	1 44	1 42	1 39	1 37	1 34	1 32	1 29	1 27	1 25	1 22	1 20	1 18	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 27°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 27°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	1	2	3	4	5	6	7	8	9	10	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	2 17	2 10	2 03	1 56	1 49	1 43	1 37	1 31	1 26	1 20	1 16		10	
	20	4 34	4 19	4 05	3 50	3 38	3 25	3 14	3 02	2 51	2 41	2 30		20	
	30	6 48	6 26	6 05	5 45	5 25	5 07	4 49	4 32	4 15	4 00	3 44		30	
	40	9 00	8 31	8 02	7 36	7 10	6 46	6 23	6 00	5 39	5 18	4 57		40	
	50	11 08	10 32	9 58	9 25	8 54	8 23	7 55	7 27	7 00	6 34	6 10		50	
1	00	13 11	12 29	11 48	11 11	10 34	9 59	9 24	8 51	8 20	7 50	7 20	1	00	
	10	15 10	14 22	13 36	12 52	12 11	11 30	10 52	10 14	9 38	9 03	8 29		10	
	20	17 02	16 09	15 19	14 30	13 44	12 59	12 15	11 33	10 53	10 14	9 36		20	
	30	18 48	17 52	16 57	16 04	15 13	14 24	13 36	12 50	12 06	11 23	10 41		30	
	40	20 29	19 28	18 29	17 32	16 38	15 44	14 53	14 04	13 15	12 28	11 44		40	
	50	22 02	20 58	19 56	18 56	17 58	17 01	16 06	15 13	14 22	13 32	12 43		50	
2	00	23 31	22 23	21 17	20 15	19 13	18 15	17 17	16 20	15 25	14 33	13 41	2	00	
	10	24 51	23 42	22 34	21 28	20 25	19 23	18 21	17 23	16 26	15 29	14 35		10	
	20	26 06	24 54	23 44	22 36	21 31	20 27	19 24	18 22	17 23	16 24	15 27		20	
	30	27 14	26 02	24 50	23 40	22 33	21 26	20 21	19 18	18 15	17 15	16 15		30	
	40	28 16	27 02	25 49	24 38	23 30	22 21	21 14	20 09	19 06	18 03	17 01		40	
	50	29 13	27 58	26 44	25 32	24 22	23 12	22 04	20 57	19 52	18 47	17 44		50	
3	00	30 02	28 48	27 34	26 21	25 09	23 58	22 49	21 41	20 35	19 28	18 24	3	00	
	10	30 49	29 33	28 19	27 05	25 52	24 41	23 30	22 22	21 14	20 07	19 00		10	
	20	31 28	30 13	28 58	27 45	26 32	25 20	24 08	22 58	21 50	20 41	19 33		20	
	30	32 04	30 48	29 33	28 19	27 06	25 54	24 42	23 31	22 21	21 12	20 04		30	
	40	32 33	31 19	30 04	28 49	27 36	26 25	25 12	24 01	22 51	21 40	20 32		40	
	50	33 00	31 45	30 30	29 16	28 03	26 51	25 38	24 27	23 17	22 06	20 56		50	
4	00	33 21	32 07	30 52	29 38	28 26	27 13	26 01	24 49	23 39	22 28	21 18	4	00	
	10	33 38	32 25	31 11	29 58	28 45	27 33	26 20	25 09	23 58	22 47	21 37		10	
	20	33 51	32 38	31 24	30 12	29 00	27 48	26 36	25 25	24 14	23 04	21 53		20	
	30	34 00	32 48	31 36	30 24	29 12	28 00	26 49	25 39	24 28	23 17	22 06		30	
	40	34 06	32 54	31 43	30 32	29 21	28 09	26 59	25 48	24 38	23 27	22 18		40	
	50	34 08	32 58	31 47	30 36	29 26	28 16	27 05	25 56	24 45	23 35	22 25		50	
5	00	34 07	32 58	31 48	30 38	29 29	28 18	27 09	25 59	24 50	23 40	22 31	5	00	
	10	34 03	32 54	31 45	30 36	29 26	28 18	27 10	26 01	24 52	23 43	22 34		10	
	20	33 55	32 48	31 39	30 31	29 24	28 16	27 07	25 59	24 52	23 43	22 34		20	
	30	33 45	32 38	31 32	30 25	29 18	28 10	27 03	25 55	24 48	23 40	22 33		30	
	40	33 31	32 26	31 20	30 14	29 09	28 02	26 55	25 49	24 42	23 35	22 28		40	
	50	33 15	32 11	31 06	30 02	28 56	27 51	26 45	25 40	24 34	23 28	22 22		50	
6	00	32 56	31 53	30 49	29 46	28 42	27 38	26 33	25 29	24 24	23 19	22 13	6	00	
	10	32 36	31 33	30 30	29 28	28 25	27 21	26 18	25 14	24 11	23 07	22 02		10	
	20	32 13	31 11	30 09	29 07	28 06	27 04	26 01	24 59	23 57	22 53	21 49		20	
	30	31 45	30 45	29 45	28 44	27 44	26 43	25 42	24 40	23 38	22 36	21 34		30	
	40	31 16	30 17	29 18	28 19	27 20	26 20	25 19	24 20	23 20	22 19	21 17		40	
	50	30 44	29 47	28 49	27 51	26 54	25 55	24 56	23 57	22 59	21 58	20 59		50	
7	00	30 11	29 15	28 18	27 22	26 26	25 28	24 30	23 33	22 35	21 37	20 38	7	00	
	10	29 35	28 41	27 45	26 50	25 54	24 58	24 03	23 06	22 10	21 13	20 16		10	
	20	28 57	28 04	27 10	26 16	25 22	24 27	23 33	22 38	21 42	20 47	19 51		20	
	30	28 18	27 25	26 32	25 40	24 47	23 54	23 01	22 07	21 14	20 20	19 25		30	
	40	27 35	26 44	25 53	25 02	24 11	23 19	22 27	21 35	20 43	19 50	18 56		40	
	50	26 50	26 02	25 12	24 22	23 32	22 42	21 51	21 01	20 10	19 19	18 28		50	
8	00	26 04	25 16	24 28	23 40	22 52	22 03	21 14	20 25	19 36	18 46	17 57	8	00	
	10	25 16	24 30	23 43	22 56	22 10	21 23	20 35	19 48	19 01	18 13	17 24		10	
	20	24 26	23 41	22 56	22 11	21 26	20 40	19 55	19 09	18 23	17 36	16 49		20	
	30	23 33	22 50	22 07	21 23	20 40	19 56	19 12	18 28	17 43	16 59	16 15		30	
	40	22 39	21 58	21 17	20 35	19 53	19 10	18 28	17 46	17 04	16 21	15 37		40	
	50	21 44	21 04	20 23	19 44	19 04	18 24	17 43	17 02	16 22	15 40	14 59		50	
9	00	20 46	20 08	19 30	18 51	18 14	17 35	16 56	16 17	15 38	14 58	14 20	9	00	
	10	19 47	19 11	18 34	17 58	17 22	16 44	16 07	15 31	14 54	14 16	13 39		10	
	20	18 46	18 12	17 38	17 03	16 29	15 53	15 18	14 43	14 08	13 32	12 57		20	
	30	17 44	17 12	16 38	16 06	15 34	15 01	14 27	13 54	13 21	12 48	12 14		30	
	40	16 40	16 10	15 39	15 08	14 38	14 07	13 35	13 04	12 33	12 01	11 29		40	
	50	15 35	15 07	14 38	14 08	13 40	13 11	12 42	12 13	11 44	11 15	10 45		50	
10	00	14 29	14 02	13 35	13 08	12 42	12 15	11 48	11 21	10 54	10 26	9 59	10	00	
	10	13 21	12 56	12 32	12 07	11 42	11 18	10 52	10 27	10 02	9 37	9 12		10	
	20	12 12	11 49	11 27	11 04	10 42	10 19	9 56	9 33	9 11	8 48	8 25		20	
	30	11 02	10 42	10 21	10 01	9 40	9 19	8 58	8 38	8 18	7 57	7 36		30	
	40	9 51	9 33	9 14	8 56	8 38	8 20	8 01	7 43	7 25	7 05	6 47		40	
	50	8 39	8 23	8 07	7 51	7 35	7 18	7 03	6 46	6 30	6 14	5 57		50	
11	00	7 26	7 12	6 58	6 44	6 31	6 17	6 03	5 49	5 36	5 21	5 07	11	00	
	10	6 13	6 01	5 50	5 39	5 27	5 15	5 04	4 52	4 40	4 29	4 17		10	
	20	4 59	4 50	4 40	4 32	4 22	4 13	4 03	3 54	3 45	3 35	3 26		20	
	30	3 45	3 38	3 31	3 24	3 17	3 09	3 03	2 56	2 49	2 41	2 34		30	
	40	2 30	2 25	2 21	2 16	2 11	2 07	2 02	1 58	1 53	1 49	1 43		40	
	50	1 15	1 13	1 10	1 08	1 06	1 04	1 01	0 59	0 56	0 54	0 52		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 28°.				DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 28°.			
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.							
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.						
0	00	180 00	180 00	180 00	180 00	.....	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00					
0	10	150 07	142 43	131 21	113 41	89 25	64 56	46 57	35 21	27 48	22 41	19 01	16 18	0	10						
0	20	130 33	122 42	113 02	101 33	88 50	75 59	64 13	54 12	46 03	39 30	34 17	30 04	0	20						
0	30	118 59	112 22	104 56	96 48	88 14	79 36	71 15	63 30	56 32	50 25	45 06	40 30	0	30						
0	40	111 44	106 15	100 21	94 06	87 39	81 09	74 43	68 34	62 46	57 24	52 31	48 05	0	40						
0	50	106 46	102 09	97 17	92 14	87 03	81 49	76 38	71 35	66 40	62 00	57 38	53 33	0	50						
1	00	103 08	99 10	95 03	90 47	86 28	82 05	77 44	73 25	69 13	65 08	61 14	57 31	1	00						
1	10	100 17	96 50	93 15	89 35	85 52	82 07	78 21	74 37	70 56	67 20	63 50	60 27	1	10						
1	20	98 00	94 55	91 45	88 33	85 16	81 58	78 40	75 21	72 05	68 52	65 42	62 38	1	20						
1	30	96 04	93 18	89 27	87 35	84 40	81 44	78 45	75 48	72 52	69 57	67 05	64 15	1	30						
1	40	94 23	91 52	88 41	86 41	84 03	81 24	78 43	76 03	73 22	70 42	68 05	65 29	1	40						
1	50	92 53	90 35	88 15	85 51	83 27	81 01	78 34	76 08	73 40	71 14	68 48	66 23	1	50						
2	00	91 33	89 25	87 15	85 03	82 50	80 36	78 20	76 05	73 49	71 33	69 18	67 03	2	00						
2	10	90 18	88 19	86 19	84 16	82 12	80 08	78 02	75 57	73 50	71 44	69 37	67 31	2	10						
2	20	89 09	87 17	85 24	83 30	81 35	79 39	77 41	75 43	73 45	71 47	69 48	67 50	2	20						
2	30	88 03	86 18	84 32	82 45	80 57	79 07	77 17	75 27	73 36	71 44	69 52	68 00	2	30						
2	40	87 01	85 22	83 42	82 01	80 18	78 35	76 51	75 07	73 22	71 36	69 51	68 05	2	40						
2	50	86 01	84 27	82 52	81 16	79 39	78 01	76 23	74 44	73 04	71 24	69 45	68 04	2	50						
3	00	85 03	83 34	82 03	80 32	79 00	77 27	75 53	74 19	72 44	71 09	69 34	67 58	3	00						
3	10	84 08	82 43	81 15	79 48	78 20	76 51	75 21	73 51	72 21	70 50	69 19	67 48	3	10						
3	20	83 12	81 50	80 27	79 04	77 39	76 14	74 48	73 23	71 56	70 28	69 01	67 33	3	20						
3	30	82 18	80 59	79 39	78 19	76 58	75 36	74 14	72 52	71 28	70 04	68 41	67 15	3	30						
3	40	81 24	80 08	78 51	77 34	76 16	74 57	73 38	72 19	70 58	69 38	68 17	66 55	3	40						
3	50	80 31	79 18	78 04	76 49	75 33	74 18	73 01	71 45	70 27	69 09	67 51	66 33	3	50						
4	00	79 38	78 27	77 16	76 03	74 50	73 37	72 23	71 09	69 53	68 38	67 23	66 07	4	00						
4	10	78 46	77 37	76 27	75 17	74 06	72 55	71 43	70 32	69 19	68 06	66 52	65 39	4	10						
4	20	77 52	76 46	75 38	74 29	73 21	72 11	71 02	69 53	68 42	67 31	66 21	65 08	4	20						
4	30	77 00	75 54	74 48	73 42	72 35	71 28	70 20	69 12	68 04	66 55	65 46	64 36	4	30						
4	40	76 06	75 03	73 58	72 53	71 48	70 42	69 37	68 30	67 24	66 17	65 10	64 02	4	40						
4	50	75 12	74 10	73 07	72 04	71 00	69 56	68 52	67 48	66 42	65 37	64 31	63 25	4	50						
5	00	74 18	73 16	72 14	71 13	70 11	69 09	68 06	67 03	66 00	64 56	63 52	62 47	5	00						
5	10	73 22	72 23	71 23	70 22	69 21	68 20	67 19	66 17	65 15	64 12	63 10	62 07	5	10						
5	20	72 27	71 28	70 29	69 29	68 30	67 30	66 30	65 30	64 29	63 28	62 26	61 24	5	20						
5	30	71 30	70 33	69 34	68 36	67 37	66 38	65 40	64 40	63 40	62 41	61 41	60 40	5	30						
5	40	70 32	69 35	68 37	67 41	66 43	65 46	64 47	63 49	62 51	61 52	60 53	59 54	5	40						
5	50	69 32	68 37	67 41	66 44	65 48	64 51	63 54	62 58	61 59	61 02	60 05	59 06	5	50						
6	00	68 32	67 38	66 42	65 47	64 51	63 54	62 59	62 04	61 07	60 11	59 16	58 20	6	00						
6	10	67 31	66 36	65 41	64 47	63 52	62 57	62 02	61 07	60 11	59 16	58 20	57 25	6	10						
6	20	66 27	65 34	64 41	63 47	62 53	61 59	61 04	60 10	59 15	58 21	57 26	56 31	6	20						
6	30	65 23	64 30	63 37	62 44	61 50	60 57	60 04	59 10	58 17	57 22	56 29	55 34	6	30						
6	40	64 16	63 24	62 31	61 39	60 46	59 53	59 00	58 08	57 15	56 22	55 29	54 36	6	40						
6	50	63 08	62 16	61 24	60 32	59 41	58 49	57 57	57 05	56 13	55 20	54 29	53 36	6	50						
7	00	61 57	61 06	60 15	59 24	58 33	57 41	56 49	55 59	55 08	54 17	53 25	52 33	7	00						
7	10	60 45	59 54	59 03	58 13	57 22	56 31	55 41	54 50	53 59	53 09	52 19	51 28	7	10						
7	20	59 30	58 39	57 49	56 59	56 09	55 19	54 30	53 41	52 50	52 00	51 11	50 21	7	20						
7	30	58 12	57 23	56 33	55 44	54 55	54 05	53 16	52 27	51 37	50 49	50 00	49 11	7	30						
7	40	56 52	56 03	55 14	54 26	53 37	52 48	51 59	51 12	50 23	49 35	48 47	47 58	7	40						
7	50	55 30	54 41	53 53	53 05	52 17	51 28	50 40	49 53	49 06	48 18	47 32	46 44	7	50						
8	00	54 03	53 16	52 28	51 41	50 53	50 05	49 18	48 32	47 45	46 59	46 13	45 26	8	00						
8	10	52 35	51 48	51 00	50 14	49 27	48 40	47 54	47 08	46 22	45 37	44 51	44 06	8	10						
8	20	51 03	50 16	49 29	48 44	47 57	47 11	46 26	45 41	44 56	44 11	43 27	42 42	8	20						
8	30	49 27	48 41	47 55	47 10	46 25	45 40	44 55	44 11	43 27	42 43	42 00	41 17	8	30						
8	40	47 47	47 03	46 18	45 33	44 49	44 04	43 21	42 38	41 54	41 12	40 29	39 47	8	40						
8	50	46 05	45 20	44 36	43 52	43 09	42 26	41 43	41 01	40 19	39 37	38 56	38 15	8	50						
9	00	44 17	43 34	42 50	42 08	41 25	40 43	40 02	39 21	38 40	37 59	37 19	36 39	9	00						
9	10	42 26	41 43	41 01	40 19	39 38	38 55	38 17	37 38	36 57	36 18	35 39	35 00	9	10						
9	20	40 30	39 49	38 67	37 87	37 08	36 28	35 50	35 12	34 34	33 57	33 19	32 42	9	20						
9	30	38 29	37 50	37 10	36 30	35 52	35 15	34 37	34 00	33 22	32 46	32 10	31 34	9	30						
9	40	36 24	35 46	35 08	34 31	33 53	33 16	32 40	32 05	31 29	30 54	30 20	29 46	9	40						
9	50	34 15	33 38	33 02	32 26	31 50	31 15	30 40	30 07	29 33	29 00	28 28	27 55	9	50						
10	00	32 01	31 26	30 51	30 17	29 43	29 10	28 37	28 05	27 33	27 02	26 31	26 01	10	00						
10	10	29 42	29 09	28 35	28 03	27 32	27 01	26 29	26 00	25 30	25 01	24 32	24 03	10	10						
10	20	27 19	26 47	26 17	25 46	25 17	24 48	24 19	23 51	23 23	22 56	22 29	22 02	10	20						
10	30	24 51	24 21	23 54	23 25	22 58	22 31	22 04	21 39	21 13	20 48	20 24	19 59	10	30						
10	40	22 18	21 52	21 25	21 00	20 35	20 11	19 47	19 24	19 01	18 37	18 16	17 54	10	40						
10	50	19 41	19 17	18 54	18 31	18 09	17 48	17 26	17 05	16 45	16 24	16 05	15 45	10	50						
11	00	17 00	16 39	16 19	15 59	15 40	15 21	15 02	14 44	14 26	14 09	13 51	13 35	11	00						
11	10	14 16	13 58	13 41	13 25	13 08	12 52	12 36	12 21	12 06	11 51	11 36	11 22	11	10						
11	20	11 29	11 15	11 00	10 47	10 33	10 20	10 08	9 55	9 43	9 31	9 20	9 07	11	20						
11	30	8 39	8 28	8 17	8 07	7 57	7 47	7 37	7 28	7 19	7 10	7 01	6 52	11	30						
11	40	5 47	5 39	5 33	5 26	5 19	5 12	5 06	4 59	4 53	4 47	4 41	4 35	11	40						
11	50	2 54	2 50	2 47	2 43	2 40	2 36	2 33	2 30	2 27	2 24	2 21	2 18	11	50						
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00						

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 28°.			DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 28°.		
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.					
h.	m.	°	'	°	'	°	'	°	'	°	'	°	'	°	'	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	14 11	12 32	11 11	10 03	9 07	8 19	7 38	7 01	6 29	6 01	5 35	5 13	4 50	4 29	1	10		
	20	26 37	23 48	21 25	19 25	17 42	16 13	14 54	13 46	12 45	11 51	11 03	10 18	9 34	8 51	2	20		
	30	36 33	33 09	30 11	27 36	25 21	23 22	21 37	20 02	18 37	17 22	16 13	15 10	14 04	13 00	3	30		
	40	44 06	40 33	37 22	34 30	31 57	29 39	27 34	25 41	23 59	22 26	21 01	19 44	18 32	17 24	4	40		
	50	49 45	46 16	43 04	40 08	37 28	35 00	32 45	30 40	28 46	27 01	25 24	23 54	22 42	21 34	5	50		
1	00	54 00	50 42	47 36	44 41	42 00	39 30	37 09	34 58	32 58	31 04	29 19	27 41	26 04	24 34	1	00		
	10	57 13	54 06	51 09	48 22	45 44	43 14	40 54	38 41	36 36	34 39	32 48	31 04	29 27	27 54	2	10		
	20	59 35	56 45	53 59	51 19	48 46	46 21	44 02	41 49	39 44	37 45	35 51	34 04	32 27	30 54	3	20		
	30	61 30	58 49	56 13	53 41	51 15	48 54	46 40	44 29	42 25	40 26	38 32	36 43	34 59	33 24	4	30		
	40	62 56	60 25	57 58	55 36	53 17	51 01	48 50	46 44	44 42	42 44	40 50	39 02	37 18	35 42	5	40		
	50	64 01	61 40	59 22	57 06	54 54	52 45	50 39	48 37	46 37	44 43	42 50	41 03	39 20	37 42	6	50		
2	00	64 50	62 38	60 28	58 20	56 14	54 11	52 10	50 12	48 16	46 24	44 34	42 48	41 04	39 24	2	00		
	10	65 26	63 22	61 20	59 18	57 18	55 20	53 24	51 30	49 38	47 48	46 02	44 17	42 34	40 54	3	10		
	20	65 52	63 55	61 58	60 03	58 09	56 16	54 24	52 35	50 47	49 01	47 16	45 34	43 54	42 16	4	20		
	30	66 10	64 19	62 28	60 38	58 50	57 01	55 14	53 28	51 45	50 02	48 20	46 40	45 04	43 30	5	30		
	40	66 19	64 34	62 49	61 04	59 20	57 37	55 53	54 12	52 31	50 51	49 13	47 35	45 59	44 26	6	40		
	50	66 23	64 43	63 02	61 22	59 42	58 03	56 24	54 46	53 08	51 32	49 56	48 21	46 48	45 16	7	50		
3	00	66 21	64 46	63 09	61 33	59 57	58 22	56 47	55 12	53 38	52 05	50 31	49 00	47 30	46 04	3	00		
	10	66 16	64 44	63 11	61 39	60 07	58 35	57 03	55 32	54 01	52 30	51 00	49 30	48 04	46 38	4	10		
	20	66 05	64 37	63 08	61 39	60 10	58 42	57 13	55 45	54 17	52 49	51 21	49 55	48 30	47 06	5	20		
	30	65 51	64 26	63 01	61 35	60 10	58 44	57 19	55 52	54 27	53 02	51 36	50 12	48 48	47 24	6	30		
	40	65 33	64 12	62 50	61 27	60 04	58 41	57 18	55 56	54 33	53 10	51 47	50 24	49 02	47 40	7	40		
	50	65 13	63 55	62 35	61 15	59 55	58 35	57 15	55 54	54 33	53 12	51 52	50 32	49 12	47 52	8	50		
4	00	64 50	63 34	62 17	60 59	59 42	58 24	57 06	55 48	54 29	53 11	51 52	50 34	49 16	48 00	4	00		
	10	64 25	63 10	61 56	60 40	59 25	58 10	56 55	55 38	54 22	53 06	51 49	50 33	49 18	48 04	5	10		
	20	63 57	62 45	61 32	60 19	59 05	57 52	56 38	55 24	54 10	52 56	51 42	50 27	49 14	48 02	6	20		
	30	63 26	62 16	61 06	59 54	58 43	57 32	56 20	55 08	53 56	52 43	51 31	50 17	49 06	47 56	7	30		
	40	62 54	61 46	60 36	59 28	58 19	57 09	55 58	54 48	53 38	52 27	51 16	50 05	48 55	47 46	8	40		
	50	62 19	61 12	60 05	58 58	57 51	56 42	55 34	54 26	53 17	52 07	50 58	49 49	48 41	47 34	9	50		
5	00	61 42	60 37	59 31	58 26	57 20	56 13	55 07	54 00	52 53	51 45	50 37	49 29	48 22	47 16	5	00		
	10	61 04	60 00	58 55	57 51	56 47	55 42	54 37	53 31	52 26	51 20	50 13	49 07	48 01	46 56	6	10		
	20	60 22	59 20	58 17	57 15	56 11	55 08	54 05	53 01	51 57	50 51	49 47	48 42	47 38	46 34	7	20		
	30	59 39	58 39	57 38	56 36	55 34	54 32	53 30	52 27	51 24	50 21	49 18	48 14	47 11	46 08	8	30		
	40	58 54	57 55	56 55	55 55	54 54	53 53	52 53	51 51	50 50	49 47	48 45	47 43	46 42	45 41	9	40		
	50	58 08	57 10	56 10	55 11	54 12	53 13	52 13	51 12	50 13	49 12	48 11	47 10	46 10	45 10	10	50		
6	00	57 19	56 22	55 24	54 26	53 28	52 30	51 31	50 32	49 33	48 34	47 34	46 34	45 35	44 36	6	00		
	10	56 28	55 32	54 35	53 38	52 41	51 45	50 47	49 49	48 51	47 52	46 54	45 55	44 56	43 57	7	10		
	20	55 35	54 41	53 45	52 48	51 53	50 56	50 00	49 03	48 06	47 09	46 12	45 15	44 18	43 21	8	20		
	30	54 40	53 46	52 52	51 57	51 01	50 07	49 11	48 16	47 20	46 23	45 27	44 32	43 36	42 41	9	30		
	40	53 43	52 49	51 56	51 02	50 08	49 14	48 20	47 25	46 31	45 36	44 41	43 46	42 51	41 56	10	40		
	50	52 43	51 51	50 58	50 06	49 12	48 19	47 26	46 33	45 39	44 45	43 51	42 57	41 64	40 71	11	50		
7	00	51 41	50 50	49 58	49 07	48 14	47 23	46 30	45 38	44 46	43 53	43 00	42 07	41 15	40 24	7	00		
	10	50 57	49 47	48 56	48 05	47 14	46 23	45 32	44 41	43 50	43 02	42 11	41 20	40 29	39 38	8	10		
	20	49 31	48 41	47 51	47 01	46 11	45 20	44 31	43 41	42 51	42 00	41 09	40 19	39 29	38 39	9	20		
	30	48 22	47 34	46 45	45 55	45 06	44 17	43 28	42 39	41 50	41 01	40 11	39 21	38 32	37 43	10	30		
	40	47 11	46 23	45 35	44 47	43 58	43 11	42 22	41 34	40 47	39 58	39 09	38 20	37 31	36 42	11	40		
	50	45 57	45 10	44 22	43 36	42 49	42 02	41 15	40 28	39 40	38 53	38 06	37 19	36 32	35 45	12	50		
8	00	44 40	43 54	43 07	42 21	41 35	40 50	40 03	39 18	38 33	37 46	37 00	36 14	35 28	34 43	8	00		
	10	43 20	42 36	41 50	41 05	40 21	39 35	38 51	38 06	37 21	36 36	35 51	35 07	34 22	33 38	9	10		
	20	41 58	41 14	40 30	39 47	39 03	38 19	37 35	36 52	36 08	35 25	34 41	33 58	33 14	32 31	10	20		
	30	40 32	39 50	39 07	38 24	37 42	36 59	36 17	35 35	34 53	34 10	33 28	32 47	32 05	31 24	11	30		
	40	39 05	38 23	37 41	37 00	36 18	35 37	34 56	34 15	33 35	32 53	32 13	31 32	30 51	30 11	12	40		
	50	37 34	36 53	36 13	35 32	34 52	34 12	33 32	32 53	32 13	31 33	30 54	30 15	29 35	28 56	13	50		
9	00	35 59	35 21	34 41	34 01	33 23	32 45	32 06	31 28	30 50	30 12	29 34	28 56	28 17	27 39	9	00		
	10	34 22	33 45	33 06	32 29	31 52	31 15	30 37	30 01	29 24	28 48	28 12	27 36	26 59	26 23	10	10		
	20	32 42	32 06	31 29	30 53	30 17	29 42	29 07	28 32	27 56	27 21	26 46	26 12	25 37	25 03	11	20		
	30	30 59	30 23	29 49	29 15	28 40	28 06	27 33	26 59	26 25	25 52	25 20	24 47	24 14	23 42	12	30		
	40	29 12	28 39	28 05	27 32	27 00	26 28	25 56	25 24	24 53	24 21	23 49	23 19	22 48	22 18	13	40		
	50	27 23	26 51	26 20	25 49	25 18	24 47	24 17	23 46	23 17	22 47	22 18	21 49	21 20	20 51	14	50		
10	00	25 30	25 00	24 31	24 02	23 33	23 05	22 36	22 07	21 40	21 12	20 44	20 17	19 48	19 21	10	00		
	10	23 35	23 07	22 39	22 12	21 45	21 19	20 52	20 25	19 59	19 32	19 08	18 43	18 18	17 54	11	10		
	20	21 36																	

AZIMUTH OR TRUE BEARING.

LATITUDE 28°.				DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 28°.			
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.							
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.						
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00						
	10	4 52	4 34	4 17	4 04	3 47	3 33	3 20	3 09	2 58	2 49	2 39	2 30		10						
	20	9 38	9 02	8 29	7 58	7 29	7 03	6 39	6 16	5 55	5 35	5 16	4 59		20						
	30	14 13	13 20	12 33	11 48	11 07	10 28	9 52	9 20	8 48	8 18	7 50	7 24		30						
	40	18 31	17 26	16 24	15 27	14 35	13 45	13 00	12 16	11 36	10 57	10 21	9 47		40						
	50	22 30	21 13	20 01	18 54	17 52	16 53	15 58	15 06	14 17	13 30	12 47	12 05		50						
1	00	26 09	24 43	23 23	22 07	20 56	19 49	18 46	17 46	16 50	15 56	15 05	14 18	1	00						
	10	29 26	27 54	26 27	25 05	23 47	22 33	21 24	20 18	19 14	18 15	17 18	16 25		10						
	20	32 23	30 46	29 14	27 45	26 24	25 06	23 50	22 39	21 30	20 25	19 23	18 24		20						
	30	34 59	33 19	31 45	30 14	28 47	27 25	26 05	24 50	23 37	22 27	21 20	20 17		30						
	40	37 17	35 37	34 00	32 27	30 58	29 32	28 10	26 50	25 33	24 20	23 10	22 03		40						
	50	39 18	37 37	35 59	34 25	32 54	31 26	30 02	28 40	27 21	26 05	24 51	23 41		50						
2	00	41 03	39 23	37 45	36 11	34 39	33 10	31 43	30 20	29 00	27 41	26 25	25 12	2	00						
	10	42 35	40 56	39 18	37 43	36 12	34 43	33 16	31 51	30 28	29 08	27 50	26 35		10						
	20	43 54	42 16	40 39	39 06	37 35	36 05	34 37	33 12	31 49	30 27	29 09	27 52		20						
	30	45 01	43 25	41 50	40 17	38 46	37 18	35 51	34 25	33 01	31 39	30 19	29 02		30						
	40	45 59	44 25	42 52	41 20	39 51	38 22	36 55	35 30	34 07	32 44	31 23	30 04		40						
	50	46 47	45 15	43 44	42 14	40 45	39 18	37 52	36 27	35 03	33 41	32 21	31 02		50						
3	00	47 28	45 58	44 28	42 59	41 32	40 06	38 41	37 16	35 54	34 32	33 11	31 52	3	00						
	10	48 01	46 33	45 05	43 39	42 12	40 47	39 23	37 59	36 37	35 16	33 56	32 37		10						
	20	48 27	47 01	45 35	44 11	42 46	41 22	39 59	38 37	37 15	35 54	34 34	33 17		20						
	30	48 47	47 23	45 59	44 36	43 13	41 51	40 29	39 07	37 47	36 27	35 08	33 50		30						
	40	49 02	47 40	46 17	44 56	43 35	42 14	40 53	39 33	38 14	36 55	35 36	34 19		40						
	50	49 11	47 51	46 30	45 11	43 51	42 32	41 13	39 54	38 36	37 18	36 00	34 43		50						
4	00	49 16	47 58	46 39	45 20	44 02	42 45	41 28	40 09	38 52	37 35	36 18	35 02	4	00						
	10	49 16	47 59	46 42	45 26	44 09	42 53	41 38	40 21	39 04	37 49	36 35	35 19		10						
	20	49 12	47 57	46 42	45 27	44 13	42 57	41 43	40 28	39 13	37 58	36 44	35 30		20						
	30	49 05	47 51	46 37	45 24	44 12	42 58	41 45	40 31	39 18	38 03	36 49	35 37		30						
	40	48 54	47 42	46 30	45 19	44 06	42 55	41 42	40 29	39 17	38 04	36 52	35 41		40						
	50	48 39	47 29	46 18	45 08	43 57	42 47	41 37	40 25	39 14	38 03	36 52	35 40		50						
5	00	48 22	47 13	46 03	44 54	43 45	42 37	41 27	40 17	39 08	37 58	36 47	35 37	5	00						
	10	48 01	46 53	45 45	44 38	43 30	42 22	41 15	40 06	38 57	37 49	36 39	35 31		10						
	20	47 37	46 31	45 24	44 19	43 13	42 06	40 59	39 51	38 45	37 37	36 29	35 22		20						
	30	47 10	46 06	45 01	43 56	42 51	41 46	40 40	39 34	38 28	37 22	36 15	35 09		30						
	40	46 41	45 38	44 34	43 30	42 26	41 23	40 18	39 14	38 09	37 04	35 58	34 53		40						
	50	46 09	45 07	44 05	43 03	42 00	40 57	39 54	38 51	37 47	36 43	35 40	34 35		50						
6	00	45 34	44 33	43 32	42 32	41 30	40 29	39 27	38 24	37 23	36 19	35 17	34 15	6	00						
	10	44 56	43 57	42 57	41 58	40 58	39 58	38 58	37 56	36 56	35 54	34 52	33 51		10						
	20	44 17	43 19	42 20	41 22	40 23	39 25	38 25	37 26	36 25	35 26	34 25	33 25		20						
	30	43 35	42 38	41 41	40 44	39 46	38 48	37 50	36 52	35 53	34 54	33 55	32 56		30						
	40	42 50	41 55	40 59	40 03	39 06	38 10	37 13	36 16	35 18	34 21	33 23	32 24		40						
	50	42 03	41 09	40 14	39 19	38 24	37 29	36 33	35 37	34 41	33 45	32 48	31 52		50						
7	00	41 14	40 21	39 27	38 33	37 39	36 46	35 51	34 56	34 01	33 07	32 11	31 16	7	00						
	10	40 22	39 31	38 38	37 45	36 53	36 00	35 06	34 13	33 20	32 26	31 32	30 38		10						
	20	39 29	38 37	37 46	36 55	36 03	35 12	34 20	33 27	32 36	31 43	30 50	29 58		20						
	30	38 32	37 42	36 52	36 02	35 12	34 22	33 31	32 40	31 50	31 00	30 07	29 15		30						
	40	37 33	36 45	35 56	35 07	34 18	33 29	32 40	31 50	31 01	30 10	29 21	28 32		40						
	50	36 32	35 45	34 57	34 10	33 22	32 35	31 47	30 58	30 10	29 22	28 34	27 45		50						
8	00	35 29	34 43	33 56	33 10	32 24	31 37	30 51	30 04	29 17	28 29	27 43	26 57	8	00						
	10	34 23	33 38	32 53	32 08	31 23	30 38	29 54	29 08	28 22	27 37	26 52	26 06		10						
	20	33 14	32 31	31 47	31 04	30 20	29 37	28 54	28 10	27 26	26 41	25 58	25 14		20						
	30	32 04	31 22	30 40	29 58	29 16	28 34	27 51	27 09	26 27	25 44	25 02	24 19		30						
	40	30 52	30 11	29 30	28 50	28 09	27 28	26 47	26 07	25 26	24 45	24 04	23 23		40						
	50	29 37	28 57	28 18	27 39	26 59	26 21	25 42	25 02	24 24	23 44	23 05	22 26		50						
9	00	28 19	27 41	27 04	26 26	25 48	25 12	24 34	23 56	23 18	22 41	22 04	21 25	9	00						
	10	26 59	26 24	25 47	25 12	24 36	24 00	23 24	22 47	22 12	21 37	21 00	20 25		10						
	20	25 38	25 03	24 29	23 55	23 20	22 47	22 12	21 39	21 05	20 30	19 56	19 22		20						
	30	24 13	23 41	23 08	22 36	22 03	21 31	20 58	20 27	19 55	19 21	18 49	18 17		30						
	40	22 48	22 17	21 45	21 14	20 44	20 14	19 44	19 12	18 42	18 12	17 42	17 12		40						
	50	21 19	20 50	20 21	19 52	19 23	18 55	18 27	17 58	17 30	17 01	16 33	16 04		50						
10	00	19 49	19 23	18 55	18 28	18 01	17 35	17 08	16 42	16 15	15 48	15 22	14 56	10	00						
	10	18 18	17 52	17 27	17 02	16 37	16 13	15 48	15 23	14 59	14 34	14 10	13 45		10						
	20	16 44	16 21	16 01	15 37	15 12	14 49	14 27	14 04	13 41	13 19	12 57	12 35		20						
	30	15 08	14 48	14 26	14 05	13 44	13 24	13 04	12 43	12 23	12 03	11 42	11 23		30						
	40	13 31	13 13	12 54	12 35	12 17	11 59	11 39	11 21	11 04	10 45	10 27	10 09		40						
	50	11 53	11 37	11 20	11 04	10 47	10 31	10 15	9 59	9 43	9 26	9 11	8 55		50						
11	00	10 14	10 00	9 45	9 31	9 17	9 03	8 49	8 35	8 21	8 07	7 54	7 40	11	00						
	10	8 33	8 21	8 10	7 58	7 46	7 34	7 22	7 11	6 58	6 47	6 36	6 24		10						
	20	6 52	6 42	6 32	6 23	6 13	6 04	5 54	5 45	5 36	5 27	5 18	5 08		20						
	30	5 10	5 03	4 55	4 48	4 41	4 34	4 27	4 20	4 13	4 05	3 58	3 52		30						
	40	3 27	3 22	3 17	3 12	3 07	3 02	2 58	2 53	2 48	2 44	2 39	2 35		40						
	50	1 43	1 41	1 39	1 36	1 34	1 32	1 29	1 27	1 24	1 21	1 19	1 17		50						
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00						

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 28°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 28°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	2 22	2 13	2 06	1 59	1 52	1 46	1 39	1 33	1 28	1 22	1 16		10	
	20	4 42	4 25	4 11	3 57	3 42	3 30	3 18	3 06	2 54	2 43	2 33		20	
	30	6 59	6 36	6 14	5 53	5 33	5 13	4 55	4 37	4 20	4 04	3 48		30	
	40	9 15	8 44	8 15	7 47	7 21	6 55	6 21	6 08	5 45	5 24	5 03		40	
	50	11 25	10 48	10 12	9 38	9 06	8 35	8 05	7 36	7 09	6 43	6 16		50	
1	00	13 32	12 48	12 06	11 27	10 48	10 11	9 36	9 02	8 29	7 58	7 29	1	00	
	10	15 32	14 43	13 55	13 10	12 27	11 45	11 05	10 26	9 49	9 13	8 38		10	
	20	17 27	16 32	15 40	14 50	14 01	13 15	12 30	11 47	11 06	10 25	9 46		20	
	30	19 15	18 16	17 20	16 25	15 32	14 41	13 52	13 05	12 20	11 36	10 53		30	
	40	20 58	19 54	18 53	17 55	16 50	16 04	15 11	14 20	13 30	12 43	11 56		40	
	50	22 32	21 25	20 22	19 20	18 20	17 21	16 25	15 31	14 38	13 47	12 57		50	
2	00	24 00	22 51	21 45	20 40	19 36	18 35	17 36	16 39	15 42	14 47	13 55	2	00	
	10	25 22	24 10	23 01	21 54	20 48	19 44	18 43	17 41	16 42	15 46	14 50		10	
	20	26 37	25 23	24 13	23 03	21 55	20 48	19 45	18 42	17 40	16 40	15 42		20	
	30	27 46	26 31	25 18	24 07	22 57	21 49	20 42	19 37	18 33	17 32	16 31		30	
	40	28 48	27 32	26 18	25 05	23 54	22 45	21 37	20 29	19 23	18 19	17 17		40	
	50	29 44	28 27	27 12	25 59	24 46	23 35	22 26	21 17	20 10	19 05	18 00		50	
3	00	30 34	29 17	28 01	26 47	25 33	24 21	23 11	22 01	20 53	19 45	18 39	3	00	
	10	31 18	30 01	28 46	27 31	26 16	25 04	23 52	22 41	21 32	20 24	19 16		10	
	20	31 58	30 40	29 24	28 09	26 55	25 42	24 30	23 19	22 07	20 59	19 50		20	
	30	32 33	31 15	30 00	28 44	27 29	26 16	25 03	23 51	22 40	21 30	20 21		30	
	40	33 02	31 45	30 30	29 15	27 59	26 45	25 33	24 21	23 08	21 58	20 48		40	
	50	33 27	32 11	30 55	29 40	28 26	27 12	25 59	24 46	23 34	22 23	21 13		50	
4	00	33 47	32 31	31 16	30 02	28 47	27 34	26 21	25 09	23 57	22 45	21 34	4	00	
	10	34 03	32 48	31 34	30 20	29 05	27 53	26 40	25 27	24 15	23 04	21 53		10	
	20	34 16	33 01	31 48	30 35	29 21	28 08	26 56	25 43	24 31	23 19	22 08		20	
	30	34 23	33 11	31 57	30 45	29 32	28 20	27 08	25 55	24 44	23 32	22 21		30	
	40	34 28													

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 29°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 29°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	o /		o /		o /		o /		o /		o /		o /	
		0	1	0	1	0	1	0	1	0	1	0	1	0	1
0	00	180 00	180 00	180 00	180 00	180 00	180 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
	10	155 19	150 18	142 56	131 35	113 52	89 24	64 43	46 38	35 03	27 33	22 27	18 48	15 10	11 40
	20	137 02	130 46	122 54	113 12	101 37	88 47	75 50	63 53	53 54	45 43	39 11	34 34	30 10	26 40
	30	124 57	119 10	112 31	105 01	96 50	88 11	79 27	71 01	63 14	56 13	50 04	44 43	40 10	36 40
	40	116 53	111 50	106 19	100 73	94 05	87 34	81 00	74 32	68 18	62 28	57 04	52 08	47 40	43 10
	50	111 11	106 50	102 11	97 17	92 11	86 58	81 41	76 26	71 19	66 23	61 41	57 16	52 40	48 10
1	00	106 57	103 09	99 09	95 00	90 43	86 21	81 56	77 32	73 11	68 56	64 50	60 53	56 50	52 40
	10	103 38	100 17	96 47	93 11	89 29	85 44	81 56	78 08	74 22	70 39	67 01	63 29	59 50	56 10
	20	100 57	97 56	94 51	90 40	86 24	82 07	78 27	75 06	71 48	68 33	65 22	62 16	59 00	55 40
	30	98 41	95 55	93 11	89 01	84 29	80 31	76 32	73 25	70 33	67 35	64 39	61 44	58 40	55 30
	40	96 45	94 16	91 44	88 09	84 32	81 12	78 28	75 47	73 05	70 23	67 44	65 07	62 20	59 30
	50	95 02	92 45	90 26	87 04	83 39	80 14	76 47	73 18	70 00	66 53	63 46	60 39	57 30	54 20
2	00	93 30	91 23	89 14	87 02	84 49	82 36	80 20	78 04	75 47	73 30	71 13	68 56	66 39	64 20
	10	92 05	90 06	88 07	86 05	84 02	81 57	79 52	77 45	75 38	73 30	71 23	69 15	67 00	64 40
	20	90 46	88 56	87 04	85 10	83 15	81 19	79 22	77 23	75 24	73 25	71 25	69 26	67 10	64 50
	30	89 33	87 49	86 03	84 17	82 29	80 39	78 50	76 59	75 06	73 15	71 22	69 29	67 10	64 50
	40	88 24	86 45	85 05	83 25	81 43	79 59	78 15	76 31	74 46	73 00	71 13	69 27	67 10	64 50
	50	87 18	85 44	84 09	82 34	80 57	79 19	77 41	76 02	74 22	72 41	71 00	69 19	67 21	64 50
3	00	86 14	84 45	83 15	81 44	80 11	78 39	77 05	75 31	73 55	72 20	70 45	69 08	67 21	64 50
	10	85 12	83 47	82 21	80 54	79 26	77 57	76 28	74 58	73 27	71 56	70 24	68 52	67 10	64 50
	20	84 12	82 50	81 28	80 05	78 40	77 16	75 50	74 23	72 57	71 30	70 02	68 34	66 50	64 50
	30	83 14	81 54	80 35	79 16	77 54	76 33	75 11	73 49	72 25	71 01	69 37	68 12	66 40	64 50
	40	82 17	81 00	79 44	78 26	77 09	75 50	74 31	73 11	71 52	70 31	69 09	67 47	66 20	64 50
	50	81 21	80 05	79 52	78 37	77 22	76 06	75 50	74 33	73 16	71 56	70 35	69 10	67 21	64 50
4	00	80 23	79 11	78 00	76 48	75 35	74 22	73 08	71 54	70 39	69 24	68 08	66 52	65 20	64 50
	10	79 26	78 17	77 08	75 58	74 47	73 36	72 25	71 13	70 01	68 48	67 34	66 21	65 00	64 50
	20	78 29	77 23	76 15	75 08	73 59	72 50	71 41	70 31	69 21	68 10	66 59	65 47	64 30	64 50
	30	77 33	76 28	75 23	74 17	73 10	72 03	70 55	69 47	68 40	67 31	66 21	65 12	64 00	64 50
	40	76 37	75 33	74 30	73 25	72 20	71 15	70 09	69 03	67 57	66 50	65 42	64 35	63 20	64 50
	50	75 40	74 38	73 35	72 33	71 30	70 26	69 22	68 18	67 13	66 07	65 02	63 50	62 40	64 50
5	00	74 43	73 42	72 41	71 40	70 37	69 36	68 33	67 30	66 27	65 23	64 19	63 15	62 10	64 50
	10	73 46	72 46	71 46	70 50	69 46	68 44	67 43	66 42	65 40	64 38	63 35	62 32	61 20	64 50
	20	72 46	71 48	70 50	69 51	68 51	67 52	66 52	65 52	64 51	63 50	62 49	61 48	60 40	64 50
	30	71 48	70 50	69 53	68 54	67 56	66 56	65 56	64 56	63 56	62 56	61 56	60 56	59 50	64 50
	40	70 48	69 51	68 53	67 57	67 00	66 03	65 05	64 07	63 09	62 10	61 12	60 13	59 10	64 50
	50	69 46	68 51	67 55	66 59	66 03	65 06	64 10	63 13	62 16	61 19	60 20	59 23	58 20	64 50
6	00	68 43	67 49	66 54	65 59	65 03	64 08	63 13	62 17	61 21	60 24	59 27	58 31	57 37	64 50
	10	67 39	66 46	65 52	64 57	64 03	63 07	62 14	61 19	60 24	59 28	58 33	57 37	56 42	64 50
	20	66 34	65 41	64 48	63 54	63 01	62 07	61 13	60 20	59 25	58 31	57 36	56 42	55 47	64 50
	30	65 28	64 35	63 43	62 50	61 57	61 04	60 11	59 17	58 24	57 31	56 37	55 43	54 48	64 50
	40	64 20	63 27	62 35	61 43	60 51	59 59	59 07	58 14	57 21	56 28	55 35	54 43	53 48	64 50
	50	63 08	62 17	61 26	60 35	59 43	58 52	58 00	57 08	56 17	55 26	54 34	53 42	52 40	64 50
7	00	61 56	61 06	60 15	59 24	58 33	57 43	56 53	56 01	55 11	54 20	53 28	52 37	51 45	64 50
	10	60 42	59 52	59 02	58 12	57 21	56 31	55 41	54 51	54 01	53 11	52 21	51 31	50 40	64 50
	20	59 25	58 36	57 46	56 57	56 07	55 18	54 29	53 39	52 50	52 01	51 12	50 23	49 34	64 50
	30	58 07	57 17	56 29	55 39	54 51	54 02	53 14	52 25	51 36	50 47	49 58	49 09	48 20	64 50
	40	56 45	55 57	55 09	54 19	53 32	52 44	51 56	51 08	50 20	49 33	48 45	47 58	47 10	64 50
	50	55 21	54 33	53 46	52 57	52 10	51 23	50 36	49 48	49 02	48 15	47 28	46 41	45 50	64 50
8	00	53 54	53 06	52 19	51 32	50 45	49 58	49 12	48 26	47 40	46 54	46 09	45 23	44 38	64 50
	10	52 23	51 37	50 51	50 03	49 18	48 32	47 47	47 01	46 16	45 31	44 46	44 01	43 16	64 50
	20	50 50	50 04	49 18	48 32	47 47	47 02	46 18	45 33	44 49	44 04	43 20	42 37	41 54	64 50
	30	49 13	48 27	47 43	46 58	46 14	45 29	44 46	44 02	43 18	42 35	41 52	41 09	40 26	64 50
	40	47 32	46 48	46 04	45 20	44 36	43 53	43 11	42 28	41 45	41 02	40 20	39 38	38 57	64 50
	50	45 49	45 04	44 21	43 38	42 56	42 14	41 32	40 51	40 10	39 28	38 48	38 07	37 27	64 50
9	00	44 00	43 18	42 35	41 53	41 11	40 30	39 50	39 09	38 30	37 49	37 10	36 30	35 50	64 50
	10	42 08	41 26	40 45	40 04	39 24	38 42	38 04	37 25	36 46	36 08	35 30	34 52	34 10	64 50
	20	40 12	39 31	38 52	38 12	37 32	36 54	36 15	35 38	34 59	34 23	33 46	33 10	32 34	64 50
	30	38 11	37 32	36 54	36 15	35 37	35 00	34 23	33 46	33 11	32 34	31 59	31 24	30 50	64 50
	40	36 06	35 28	34 51	34 14	33 38	33 02	32 27	31 52	31 18	30 43	30 10	29 36	29 00	64 50
	50	33 57	33 20	32 46	32 10	31 35	31 01	30 27	29 54	29 22	28 49	28 17	27 45	27 10	64 50
10	00	31 43	31 08	30 34	30 01	29 28	28 56	28 24	27 52	27 22	26 51	26 21	25 51	25 10	64 50
	10	29 24	28 52	28 20	27 48	27 17	26 47	26 17	25 48	25 18	24 50	24 21	23 53	23 10	64 50
	20	27 01	26 31	26 01	25 32	25 03	24 34	24 07	23 40	23 13	22 46	22 19	21 54	21 10	64 50
	30	24 34	24 06	23 38	23 12	22 45	22 19	21 53	21 27	21 03	20 38	20 15	19 51	19 10	64 50
	40	22 03	21 37	21 12	20 47	20 23	19 59	19 36	19 13	18 51	18 28	18 07	17 46	17 10	64 50
	50	19 27	19 04	18 42	18 19	17 58	17 37	17 17	16 55	16 36	16 16	15 57	15 38	15 10	64 50
11	00	16 48	16 28	16 08	15 49	15 30	15 11	14 53	14 36	14 18	14 01	13 45	13 28	13 10	64 50
	10	14 05	13 48	13 32	13 15	13 00	12 44	12 28	12 13	11 59	11 45	11 31	11 17	11 00	64 50
	20	11 20	11 06	10 53	10 39	10 26	10 14	10 02	9 49	9 38	9 26	9 15	9 03	8 50	64 50
	30	8 32	8 22	8 12	8 01	7 51	7 42	7 33	7 23	7 14	7 06	6 58	6 49	6 40	64 50
	40	5 42	5 35	5 28	5 22	5 16	5 09	5 02	4 56	4 50	4 45	4 38	4 33	4 20	64 50
	50	2 52	2 48	2 44	2 41	2 38	2 35	2 31	2 28	2 25	2 22	2 19	2 16	2 10	64 50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	64 50

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

AZIMUTH OR TRUE BEARING.

LATITUDE 29°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 29°.		
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.			
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
0	10	16 07	14 01	12 22	11 02	9 55	8 59	8 11	7 31	6 54	6 22	5 55	5 29	0	10		
0	20	29 45	26 20	23 31	21 09	19 10	17 27	15 58	14 41	13 33	12 33	11 39	10 50	0	20		
0	30	40 08	36 11	32 47	29 50	27 16	25 01	23 02	21 18	19 44	18 19	17 04	15 56	0	30		
0	40	47 42	43 43	40 09	36 57	34 06	31 34	29 15	27 11	25 19	23 36	22 04	20 40	0	40		
0	50	53 10	49 22	45 52	42 39	39 43	37 02	34 33	32 18	30 14	28 21	26 36	24 59	0	50		
1	00	57 09	53 36	50 17	47 09	44 15	41 33	39 02	36 42	34 31	32 30	30 37	28 52	1	00		
1	10	60 05	56 49	53 42	50 44	47 56	45 17	42 46	40 25	38 11	36 06	34 09	32 18	1	10		
1	20	62 16	59 15	56 20	53 33	50 51	48 19	45 51	43 32	41 20	39 13	37 13	35 20	1	20		
1	30	63 53	61 07	58 24	55 47	53 14	50 47	48 25	46 09	43 59	41 53	39 54	38 00	1	30		
1	40	65 07	62 32	60 00	57 32	55 08	52 48	50 31	48 19	46 12	44 10	42 12	40 18	1	40		
1	50	66 01	63 36	61 15	58 56	56 39	54 26	52 15	50 08	48 05	46 05	44 09	42 17	1	50		
2	00	66 41	64 26	62 13	60 02	57 52	55 45	53 41	51 39	49 39	47 43	45 50	43 59	2	00		
2	10	67 08	65 01	62 57	60 52	58 50	56 49	54 50									

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 29°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 29°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		0	0	0	0	0	0	0	0	0	0	0	0		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	5 07	4 47	4 28	4 11	3 55	3 42	3 28	3 15	3 04	2 53	2 44	2 34		10
	20	10 07	9 27	8 51	8 19	7 48	7 19	6 54	6 30	6 07	5 46	5 26	5 07		20
	30	14 54	13 57	13 05	12 18	11 33	10 52	10 14	9 38	8 56	8 34	8 05	7 37		30
	40	19 22	18 11	17 06	16 04	15 08	14 16	13 27	12 41	11 58	11 18	10 40	10 04		40
	50	23 39	22 07	20 50	19 38	18 31	17 29	16 31	15 36	14 44	13 55	13 09	12 26		50
1	00	27 13	25 41	24 16	22 56	21 40	20 29	19 24	18 20	17 20	16 25	15 32	14 41	1	00
	10	30 34	28 57	27 25	25 58	24 36	23 18	22 05	20 55	19 49	18 46	17 47	16 51		10
	20	33 33	31 51	30 15	28 43	27 15	25 52	24 35	23 19	22 08	20 59	19 55	18 53		20
	30	36 11	34 26	32 47	31 12	29 40	28 14	26 52	25 32	24 16	23 03	21 54	20 47		30
	40	38 28	36 43	35 02	33 25	31 51	30 23	28 57	27 34	26 15	24 59	23 45	22 35		40
	50	40 27	38 43	37 01	35 23	33 48	32 18	30 50	29 25	28 03	26 43	25 28	24 14		50
2	00	42 12	40 28	38 47	37 09	35 33	34 02	32 32	31 05	29 41	28 21	27 03	25 46	2	00
	10	43 42	41 58	40 18	38 41	37 05	35 33	34 04	32 36	31 11	29 48	28 28	27 10		10
	20	44 58	43 17	41 38	40 02	38 27	36 55	35 25	33 57	32 31	31 07	29 47	28 27		20
	30	46 03	44 25	42 48	41 12	39 38	38 06	36 37	35 10	33 43	32 19	30 57	29 37		30
	40	46 59	45 21	43 46	42 12	40 40	39 10	37 40	36 13	34 47	33 23	32 00	30 40		40
	50	47 45	46 10	44 37	43 05	41 33	40 04	38 36	37 09	35 44	34 20	32 58	31 36		50
3	00	48 22	46 49	45 19	43 48	42 19	40 51	39 24	37 58	36 33	35 09	33 47	32 26	3	00
	10	48 53	47 23	45 54	44 24	42 57	41 30	40 05	38 40	37 16	35 53	34 31	33 10		10
	20	49 16	47 48	46 22	44 55	43 29	42 04	40 39	39 16	37 52	36 30	35 09	33 48		20
	30	49 34	48 07	46 43	45 18	43 54	42 31	41 08	39 45	38 23	37 02	35 42	34 21		30
	40	49 46	48 22	46 59	45 36	44 14	42 52	41 30	40 07	38 48	37 28	36 08	34 49		40
	50	49 52	48 31	47 11	45 49	44 28	43 08	41 48	40 28	39 09	37 50	36 31	35 13		50
4	00	49 55	48 35	47 16	45 57	44 38	43 19	42 01	40 42	39 24	38 06	36 49	35 31	4	00
	10	49 53	48 35	47 18	46 00	44 43	43 26	42 09	40 52	39 35	38 18	37 02	35 45		10
	20	49 47	48 31	47 16	46 00	44 45	43 29	42 13	40 57	39 41	38 26	37 11	35 56		20
	30	49 37	48 24	47 10	45 55	44 41	43 28	42 13	40 59	39 45	38 30	37 16	36 02		30
	40	49 24	48 12	47 00	45 47	44 35	43 22	42 09	40 56	39 43	38 31	37 18	36 04		40
	50	49 07	47 57	46 47	45 35	44 24	43 13	42 02	40 50	39 38	38 27	37 15	36 04		50
5	00	48 48	47 39	46 30	45 20	44 11	43 01	41 51	40 41	39 31	38 20	37 10	35 59	5	00
	10	48 25	47 18	46 10	45 02	43 54	42 45	41 37	40 28	39 19	38 10	37 01	35 51		10
	20	47 59	46 53	45 48	44 41	43 34	42 27	41 20	40 13	39 04	37 57	36 49	35 41		20
	30	47 31	46 26	45 22	44 17	43 11	42 06	41 00	39 53	38 48	37 41	36 34	35 27		30
	40	46 59	45 56	44 53	43 50	42 46	41 41	40 37	39 32	38 27	37 22	36 17	35 10		40
	50	46 26	45 25	44 22	43 20	42 18	41 15	40 11	39 08	38 04	37 00	35 56	34 51		50
6	00	45 50	44 49	43 49	42 48	41 46	40 45	39 43	38 41	37 38	36 36	35 32	34 29	6	00
	10	45 11	44 12	43 13	42 13	41 13	40 13	39 12	38 11	37 09	36 08	35 07	34 05		10
	20	44 31	43 33	42 34	41 36	40 37	39 38	38 39	37 39	36 39	35 39	34 38	33 37		20
	30	43 47	42 50	41 53	40 56	39 58	39 01	38 03	37 04	36 06	35 06	34 06	33 08		30
	40	43 00	42 05	41 10	40 14	39 17	38 21	37 24	36 27	35 29	34 32	33 34	32 36		40
	50	42 13	41 18	40 24	39 29	38 34	37 39	36 44	35 48	34 51	33 55	32 59	32 02		50
7	00	41 22	40 29	39 36	38 42	37 48	36 55	36 00	35 05	34 10	33 16	32 21	31 25	7	00
	10	40 30	39 38	38 46	37 54	37 00	36 08	35 14	34 21	33 28	32 34	31 41	30 47		10
	20	39 34	38 43	37 53	37 02	36 11	35 19	34 27	33 35	32 43	31 51	30 59	30 06		20
	30	38 37	37 47	36 58	36 07	35 18	34 28	33 37	32 47	31 56	31 05	30 14	29 22		30
	40	37 37	36 49	36 01	35 12	34 23	33 35	32 45	31 56	31 07	30 17	29 28	28 37		40
	50	36 35	35 48	35 01	34 13	33 26	32 39	31 51	31 03	30 15	29 27	28 39	27 50		50
8	00	35 30	34 45	33 59	33 13	32 27	31 41	30 55	30 08	29 21	28 35	27 48	27 01	8	00
	10	34 24	33 40	32 55	32 10	31 26	30 41	29 56	29 11	28 27	27 41	26 56	26 10		10
	20	33 15	32 32	31 49	31 06	30 23	29 39	28 56	28 13	27 28	26 45	26 02	25 15		20
	30	32 04	31 23	30 40	29 59	29 17	28 36	27 53	27 12	26 29	25 47	25 05	24 22		30
	40	30 51	30 10	29 30	28 50	28 10	27 30	26 50	26 09	25 28	24 48	24 07	23 26		40
	50	29 35	28 56	28 18	27 39	27 00	26 21	25 42	25 04	24 25	23 46	23 07	22 27		50
9	00	28 17	27 40	27 03	26 26	25 48	25 11	24 35	23 57	23 20	22 43	22 05	21 28	9	00
	10	26 57	26 21	25 46	25 10	24 35	23 59	23 24	22 48	22 13	21 37	21 01	20 26		10
	20	25 35	25 01	24 27	23 53	23 20	22 45	22 12	21 38	21 04	20 31	19 57	19 23		20
	30	24 11	23 39	23 06	22 34	22 02	21 30	20 58	20 26	19 54	19 23	18 50	18 18		30
	40	22 45	22 14	21 44	21 13	20 43	20 13	19 43	19 13	18 42	18 12	17 42	17 12		40
	50	21 16	20 48	20 18	19 51	19 23	18 55	18 25	17 57	17 29	17 01	16 32	16 05		50
10	00	19 46	19 19	18 53	18 26	18 00	17 34	17 07	16 41	16 14	15 48	15 22	14 56	10	00
	10	18 14	17 49	17 25	16 56	16 30	16 12	15 47	15 23	14 58	14 34	14 09	13 45		10
	20	16 40	16 18	15 55	15 32	15 10	14 48	14 25	14 04	13 41	13 18	12 56	12 34		20
	30	15 06	14 45	14 25	14 04	13 44	13 23	13 03	12 42	12 23	12 02	11 42	11 22		30
	40	13 29	13 11	12 52	12 33	12 15	11 57	11 36	11 21	11 02	10 45	10 27	10 08		40
	50	11 50	11 35	11 18	11 02	10 46	10 30	10 14	9 58	9 42	9 26	9 11	8 55		50
11	00	10 12	9 57	9 43	9 29	9 15	9 01	8 48	8 34	8 21	8 06	7 53	7 39	11	00
	10	8 32	8 20	8 08	7 56	7 44	7 32	7 21	7 10	6 58	6 46	6 35	6 24		10
	20	6 51	6 41	6 31	6 22	6 12	6 03	5 54	5 45	5 36	5 27	5 17	5 08		20
	30	5 09	5 01	4 54	4 47	4 40	4 33	4 26	4 19	4 12	4 05	3 58	3 51		30
	40	3 25	3 20	3 17	3 12	3 07	3 02	2 58	2 53	2 49	2 43	2 39	2 34		40
	50	1 43	1 40	1 38	1 36	1 33	1 31	1 28	1 26	1 24	1 22	1 19	1 17		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 29°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 29°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	1	2	3	4	5	6	7	8	9	10	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	2 25	2 17	2 09	2 02	1 55	1 48	1 42	1 35	1 29	1 24	1 18		10	
	20	4 50	4 34	4 17	4 02	3 48	3 35	3 22	3 10	2 58	2 47	2 36		20	
	30	7 11	6 47	6 24	6 02	5 41	5 21	5 02	4 43	4 26	4 09	3 53		30	
	40	9 30	8 58	8 28	7 59	7 32	7 05	6 40	6 16	5 52	5 30	5 09		40	
	50	11 45	11 06	10 29	9 52	9 18	8 46	8 16	7 46	7 18	6 50	6 24		50	
1	00	13 53	13 08	12 24	11 43	11 03	10 25	9 48	9 14	8 41	8 08	7 37	1	00	
	10	15 57	15 05	14 16	13 29	12 44	12 01	11 20	10 39	10 01	9 24	8 49		10	
	20	17 53	16 57	16 03	15 11	14 21	13 33	12 47	12 02	11 18	10 37	9 57		20	
	30	19 44	18 42	17 44	16 47	15 53	15 00	14 10	13 21	12 34	11 48	11 05		30	
	40	21 27	20 22	19 19	18 19	17 21	16 23	15 29	14 37	13 45	12 56	12 09		40	
	50	23 03	21 55	20 49	19 44	18 42	17 43	16 45	15 49	14 54	14 01	13 10		50	
2	00	24 32	23 22	22 13	21 05	20 01	18 57	17 56	16 58	16 00	15 03	14 09	2	00	
	10	25 55	24 41	23 30	22 20	21 13	20 07	19 03	18 01	17 01	16 01	15 04		10	
	20	27 10	25 54	24 41	23 29	22 20	21 12	20 06	19 02	17 59	16 57	15 58		20	
	30	28 18	27 02	25 48	24 34	23 22	22 12	21 04	19 58	18 53	17 49	16 47		30	
	40	29 20	28 02	26 47	25 22	24 19	23 09	21 59	20 50	19 43	18 37	17 33		40	
	50	30 16	28 58	27 41	26 26	25 12	23 59	22 48	21 38	20 30	19 22	18 17		50	
3	00	31 06	29 47	28 31	27 15	26 00	24 46	23 34	22 23	21 13	20 04	18 57	3	00	
	10	31 50	30 32	29 14	27 58	26 43	25 28	24 15	23 03	21 52	20 42	19 34		10	
	20	32 29	31 11	29 53	28 36	27 20	26 06	24 52	23 39	22 28	21 17	20 07		20	
	30	33 02	31 44	30 27	29 11	27 55	26 40	25 26	24 12	23 00	21 48	20 38		30	
	40	33 31	32 14	30 57	29 40	28 24	27 09	25 55	24 41	23 28	22 16	21 05		40	
	50	33 55	32 38	31 21	30 05	28 50	27 35	26 20	25 06	23 53	22 41	21 30		50	
4	00	34 14	32 57	31 42	30 27										

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

In **North latitude**, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In **South latitude**, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the **latitude and declination** are of **different name**, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 30°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 30°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	18 36	15 54	13 50	12 12	10 53	9 46	8 51	8 03	7 23	6 47	6 16	5 48	0	10
0	20	33 37	29 26	26 01	23 13	20 53	18 53	17 11	15 43	14 27	13 20	12 20	11 27	0	20
0	30	44 21	39 45	35 49	32 25	29 28	26 55	24 41	22 42	20 57	19 25	18 01	16 46	0	30
0	40	51 46	47 19	43 18	39 44	36 33	33 42	31 09	28 51	26 48	24 56	23 14	21 42	0	40
0	50	56 55	52 46	48 57	45 26	42 13	39 17	36 35	34 07	31 52	29 48	27 54	26 09	0	50
1	00	60 32	56 45	53 12	49 51	46 43	43 47	41 05	38 34	36 13	34 03	32 01	30 08	1	00
1	10	63 08	59 42	56 24	53 16	50 17	47 27	44 48	42 17	39 55	37 42	35 36	33 39	1	10
1	20	65 01	61 53	58 50	55 55	53 06	50 24	47 49	45 21	43 01	40 48	38 42	36 42	1	20
1	30	66 23	63 31	60 42	57 59	55 20	52 46	50 18	47 54	45 37	43 27	41 21	39 21	1	30
1	40	67 23	64 45	62 08	59 35	57 05	54 40	52 18	50 01	47 49	45 41	43 36	41 37	1	40
1	50	68 06	65 38	63 12	60 49	58 29	56 11	53 56	51 45	49 37	47 32	45 31	43 35	1	50
2	00	68 34	66 17	64 01	61 48	59 35	57 24	55 16	53 10	51 06	49 06	47 09	45 15	2	00
2	10	68 53	66 45	64 37	62 31	60 25	58 21	56 20	54 19	52 21	50 24	48 31	46 39	2	10
2	20	69 03	67 03	65 03	63 03	61 04	59 06	57 10	55 15	53 21	51 30	49 39	47 51	2	20
2	30	69 06	67 12	65 18	63 25	61 32	59 40	57 49	55 59	54 10	52 23	50 36	48 50	2	30
2	40	69 02	67 15	65 27	63 40	61 52	60 06	58 20	56 33	54 48	53 05	51 22	49 40	2	40
2	50	68 55	67 12	65 29	63 48	62 05	60 22	58 40	56 59	55 18	53 38	51 57	50 21	2	50
3	00	68 42	67 05	65 27	63 49	62 11	60 33	58 56	57 17	55 40	54 04	52 28	50 52	3	00
3	10	68 26	66 52	65 19	63 46	62 12	60 37	59 03	57 29	55 56	54 23	52 50	51 17	3	10
3	20	68 07	66 37	65 07	63 38	62 07	60 37	59 06	57 36	56 06	54 35	53 05	51 36	3	20
3	30	67 44	66 18	64 52	63 26	61 59	60 31	59 04	57 37	56 09	54 42	53 13	51 48	3	30
3	40	67 19	65 56	64 33	63 10	61 46	60 21	58 58	57 33	56 09	54 45	53 19	51 55	3	40
3	50	66 49	65 31	64 11	62 50	61 30	60 08	58 47	57 25	56 03	54 41	53 19	51 57	3	50
4	00	66 21	65 04	63 46	62 29	61 10	59 51	58 33	57 13	55 55	54 35	53 15	51 55	4	00
4	10	65 49	64 34	63 19	62 04	60 47	59 31	58 15	56 58	55 41	54 24	53 06	51 49	4	10
4	20	65 14	64 03	62 50	61 36	60 22	59 09	57 54	56 39	55 25	54 09	52 54	51 38	4	20
4	30	64 39	63 28	62 17	61 06	59 54	58 42	57 30	56 18	55 05	53 52	52 39	51 25	4	30
4	40	64 00	62 52	61 43	60 34	59 25	58 14	57 04	55 53	54 42	53 31	52 19	51 07	4	40
4	50	63 20	62 14	61 06	59 59	58 52	57 43	56 34	55 26	54 16	53 07	51 57	50 47	4	50
5	00	62 38	61 33	60 28	59 23	58 16	57 10	56 03	54 56	53 48	52 41	51 32	50 23	5	00
5	10	61 55	60 51	59 47	58 43	57 38	56 33	55 28	54 23	53 17	52 11	51 04	49 57	5	10
5	20	61 10	60 08	59 04	58 03	56 59	55 56	54 52	53 48	52 44	51 39	50 34	49 29	5	20
5	30	60 22	59 22	58 20	57 19	56 17	55 15	54 13	53 11	52 08	51 05	50 01	48 57	5	30
5	40	59 33	58 34	57 33	56 34	55 34	54 33	53 32	52 31	51 29	50 27	49 25	48 23	5	40
5	50	58 42	57 44	56 46	55 47	54 47	53 48	52 49	51 49	50 48	49 49	48 48	47 46	5	50
6	00	57 50	56 52	55 54	54 58	54 00	53 01	52 03	51 04	50 05	49 06	48 07	47 07	6	00
6	10	56 55	55 58	55 03	54 07	53 09	52 12	51 15	50 18	49 20	48 23	47 24	46 25	6	10
6	20	55 59	55 04	54 08	53 13	52 17	51 22	50 26	49 30	48 33	47 37	46 39	45 42	6	20
6	30	54 59	54 06	53 12	52 18	51 23	50 28	49 33	48 39	47 44	46 47	45 52	44 56	6	30
6	40	53 59	53 06	52 13	51 20	50 26	49 32	48 39	47 46	46 51	45 57	45 02	44 08	6	40
6	50	52 56	52 04	51 12	50 21	49 28	48 35	47 43	46 50	45 57	45 04	44 11	43 17	6	50
7	00	51 52	51 00	50 09	49 18	48 27	47 35	46 44	45 52	45 00	44 08	43 16	42 24	7	00
7	10	50 44	49 55	49 04	48 14	47 23	46 33	45 43	44 52	44 02	43 11	42 19	41 28	7	10
7	20	49 35	48 46	47 57	47 08	46 18	45 29	44 40	43 50	43 01	42 11	41 21	40 31	7	20
7	30	48 24	47 35	46 46	45 57	45 11	44 22	43 34	42 45	41 58	41 09	40 20	39 31	7	30
7	40	47 09	46 23	45 35	44 49	44 01	43 14	42 27	41 39	40 52	40 05	39 17	38 29	7	40
7	50	45 53	45 07	44 21	43 35	42 48	42 03	41 16	40 30	39 45	38 58	38 12	37 25	7	50
8	00	44 34	43 49	43 03	42 19	41 34	40 49	40 04	39 19	38 34	37 48	37 04	36 19	8	00
8	10	43 12	42 29	41 44	41 01	40 17	39 32	38 49	38 05	37 22	36 38	35 54	35 10	8	10
8	20	41 48	41 05	40 23	39 40	38 57	38 15	37 31	36 49	36 06	35 24	34 42	33 59	8	20
8	30	40 21	39 40	38 57	38 17	37 35	36 53	36 12	35 31	34 49	34 08	33 26	32 45	8	30
8	40	38 52	38 12	37 30	36 50	36 10	35 29	34 50	34 10	33 30	32 50	32 11	31 30	8	40
8	50	37 20	36 40	36 01	35 22	34 42	34 03	33 25	32 46	32 07	31 30	30 51	30 13	8	50
9	00	35 44	35 06	34 27	33 50	33 13	32 34	31 57	31 21	30 43	30 06	29 30	28 53	9	00
9	10	34 06	33 29	32 53	32 17	31 40	31 04	30 28	29 52	29 16	28 41	28 06	27 31	9	10
9	20	32 25	31 49	31 15	30 40	30 05	29 31	28 56	28 22	27 48	27 14	26 40	26 07	9	20
9	30	30 41	30 07	29 34	29 01	28 27	27 55	27 21	26 49	26 17	25 44	25 12	24 40	9	30
9	40	28 54	28 22	27 50	27 19	26 47	26 15	25 45	25 13	24 43	24 13	23 43	23 12	9	40
9	50	27 04	26 35	26 04	25 35	25 04	24 35	24 06	23 37	23 08	22 39	22 10	21 42	9	50
10	00	25 13	24 44	24 15	23 47	23 19	22 52	22 24	21 57	21 30	21 04	20 36	20 10	10	00
10	10	23 18	22 50	22 24	21 58	21 32	21 06	20 40	20 16	19 50	19 26	19 01	18 36	10	10
10	20	21 20	20 55	20 31	20 06	19 43	19 18	18 56	18 32	18 09	17 46	17 23	17 00	10	20
10	30	19 19	18 57	18 34	18 13	17 50	17 29	17 08	16 47	16 26	16 05	15 44	15 23	10	30
10	40	17 17	16 57	16 36	16 17	15 57	15 38	15 19	15 00	14 41	14 21	14 03	13 45	10	40
10	50	15 13	14 54	14 36	14 20	14 02	13 45	13 28	13 10	12 54	12 38	12 21	12 05	10	50
11	00	13 06	12 50	12 35	12 20	12 05	11 50	11 35	11 20	11 06	10 52	10 37	10 24	11	00
11	10	10 58	10 44	10 31	10 19	10 06	9 54	9 41	9 29	9 17	9 05	8 53	8 41	11	10
11	20	8 48	8 38	8 27	8 16	8 06	7 57	7 46	7 37	7 27	7 18	7 07	6 58	11	20
11	30	6 37	6 29	6 21	6 14	6 06	5 58	5 51	5 43	5 36	5 29	5 21	5 14	11	30
11	40	4 26	4 20	4 14	4 10	4 04	3 59	3 55	3 49	3 44	3 39	3 35	3 30	11	40
11	50	2 12	2 10	2 08	2 05	2 02	2 00	1 57	1 54	1 52	1 50	1 48	1 45	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 30°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 30°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	0	1	2	3	4	5	6	7	8	9	10	11	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	5 23	5 02	4 41	4 22	4 06	3 50	3 37	3 23	3 10	3 00	2 49	2 39		10
	20	10 38	9 55	9 16	8 40	8 08	7 38	7 09	6 44	6 20	5 58	5 36	5 16		20
	30	15 39	14 37	13 41	12 49	12 02	11 18	10 37	9 59	9 24	8 52	8 21	7 51		30
	40	20 19	19 01	17 50	16 45	15 44	14 49	13 56	13 08	12 23	11 40	11 00	10 22		40
	50	24 33	23 05	21 42	20 26	19 14	18 08	17 06	16 08	15 13	14 22	13 33	12 48		50
1	00	28 23	26 46	25 14	23 49	22 28	21 14	20 03	18 57	17 55	16 56	16 00	15 06	1	00
	10	31 48	30 04	28 27	26 55	25 28	24 05	22 48	21 35	20 26	19 21	18 19	17 18		10
	20	34 48	33 01	31 19	29 43	28 11	26 43	25 20	24 02	22 47	21 36	20 28	19 23		20
	30	37 27	35 36	33 52	32 13	30 38	29 06	27 40	26 17	24 57	23 42	22 30	21 20		30
	40	39 43	37 54	36 08	34 26	32 49	31 15	29 47	28 21	26 58	25 39	23 23	23 03		40
	50	41 42	39 52	38 07	36 25	34 47	33 11	31 40	30 12	28 47	27 25	26 06	24 49		50
2	00	46 24	44 36	42 51	41 10	39 31	37 55	36 23	34 53	33 27	32 02	30 30	29 02	2	00
	10	44 51	43 05	41 22	39 40	38 03	36 27	34 54	33 24	31 55	30 30	29 08	27 47		10
	20	46 05	44 21	42 39	41 00	39 23	37 48	36 15	34 44	33 15	31 50	30 26	29 04		20
	30	47 08	45 26	43 46	42 09	40 32	38 58	37 26	35 56	34 27	33 01	31 36	30 13		30
	40	48 00	46 21	44 43	43 07	41 33	39 59	38 28	36 59	35 30	34 04	32 40	31 16		40
	50	48 43	47 06	45 31	43 57	42 24	40 52	39 22	37 53	36 25	34 59	33 35	32 11		50
3	00	49 18	47 44	46 11	44 39	43 08	41 37	40 09	38 40	37 14	35 48	34 25	33 01	3	00
	10	49 45	48 14	46 44	45 14	43 44	42 16	40 48	39 22	37 56	36 31	35 08	33 45		10
	20	50 06	48 38	47 09	45 41	44 13	42 47	41 20	39 55	38 30	37 07	35 44	34 22		20
	30	50 21	48 54	47 29	46 03	44 37	43 12	41 47	40 23	39 00	37 38	36 16	34 54		30
	40	50 31	49 06	47 42	46 19	44 55	43 31	42 09	40 46	39 24	38 03	36 42	35 21		40
	50	50 35	49 13	47 51	46 29	45 08	43 46	42 25	41 04	39 42	38 22	37 03	35 43		50
4	00	50 35	49 15	47 55	46 35	45 15	43 55	42 36	41 16	39 57	38 38	37 20	36 01	4	00
	10	50 30	49 13	47 55	46 37	45 18	44 00	42 42	41 24	40 06	38 49	37 32	36 14		10
	20	50 22	49 06	47 50	46 34	45 17	44 01	42 45	41 29	40 12	38 55	37 39	36 23		20
	30	50 10	48 56	47 42	46 27	45 13	43 58	42 43	41 28	40 13	38 58	37 43	36 28		30
	40	49 55	48 43	47 30	46 17	45 04	43 51	42 37	41 24	40 10	38 57	37 43	36 29		40
	50	49 36	48 26	47 15	46 04	44 52	43 41	42 29	41 17	40 04	38 52	37 40	36 27		50
5	00	49 14	48 06	46 57	45 47	44 37	43 26	42 16	41 06	39 54	38 44	37 33	36 21	5	00
	10	48 50	47 43	46 35	45 26	44 18	43 10	42 01	40 52	39 42	38 33	37 23	36 12		10
	20	48 23	47 17	46 11	45 04	43 57	42 50	41 43	40 35	39 26	38 18	37 10	36 01		20
	30	47 52	46 48	45 44	44 38	43 32	42 27	41 20	40 14	39 07	38 01	36 53	35 46		30
	40	47 20	46 17	45 13	44 10	43 06	42 01	40 56	39 51	38 46	37 40	36 35	35 28		40
	50	46 44	45 43	44 41	43 38	42 35	41 32	40 29	39 26	38 22	37 18	36 14	35 09		50
6	00	46 07	45 07	44 06	43 05	42 04	41 02	40 00	38 57	37 54	36 52	35 49	34 45	6	00
	10	45 27	44 28	43 28	42 29	41 29	40 28	39 27	38 26	37 25	36 24	35 21	34 20		10
	20	44 45	43 47	42 48	41 50	40 51	39 52	38 53	37 53	36 53	35 53	34 52	33 51		20
	30	43 59	43 03	42 06	41 09	40 11	39 14	38 16	37 17	36 18	35 19	34 20	33 20		30
	40	43 12	42 17	41 21	40 26	39 29	38 33	37 36	36 39	35 42	34 44	33 46	32 47		40
	50	42 22	41 29	40 34	39 40	38 45	37 50	36 55	35 59	35 02	34 06	33 10	32 13		50
7	00	41 31	40 38	39 45	38 52	37 58	37 04	36 10	35 15	34 21	33 26	32 31	31 35	7	00
	10	40 36	39 45	38 53	38 01	37 09	36 16	35 23	34 30	33 37	32 43	31 50	30 55		10
	20	39 41	38 50	38 00	37 09	36 18	35 27	34 35	33 43	32 51	31 59	31 07	30 13		20
	30	38 41	37 53	37 03	36 14	35 25	34 35	33 45	32 54	32 03	31 13	30 21	29 30		30
	40	37 42	36 53	36 05	35 17	34 29	33 40	32 52	32 02	31 13	30 24	29 34	28 45		40
	50	36 38	35 52	35 05	34 18	33 31	32 43	31 57	31 09	30 21	29 33	28 45	27 56		50
8	00	35 32	34 48	34 03	33 17	32 31	31 45	31 00	30 13	29 27	28 41	27 54	27 07	8	00
	10	34 26	33 41	32 58	32 14	31 29	30 44	30 00	29 16	28 30	27 45	27 01	26 15		10
	20	33 16	32 34	31 51	31 08	30 25	29 42	28 59	28 16	27 32	26 49	26 05	25 22		20
	30	32 04	31 23	30 41	30 01	29 19	28 37	27 56	27 15	26 32	25 51	25 09	24 26		30
	40	30 50	30 10	29 31	28 51	28 11	27 30	26 51	26 11	25 30	24 50	24 10	23 30		40
	50	29 34	28 56	28 18	27 40	27 01	26 22	25 44	25 05	24 26	23 48	23 09	22 30		50
9	00	28 15	27 39	27 02	26 26	25 48	25 11	24 35	23 58	23 21	22 44	22 07	21 30	9	00
	10	26 55	26 20	25 45	25 10	24 35	23 59	23 24	22 49	22 14	21 39	21 03	20 28		10
	20	25 33	25 00	24 26	23 53	23 20	22 46	22 12	21 39	21 06	20 32	19 58	19 24		20
	30	24 08	23 37	23 05	22 33	22 02	21 29	20 59	20 27	19 54	19 23	18 51	18 19		30
	40	22 41	22 11	21 42	21 12	20 42	20 12	19 43	19 13	18 43	18 12	17 43	17 13		40
	50	21 14	20 45	20 17	19 49	19 21	18 53	18 25	17 57	17 29	17 01	16 33	16 05		50
10	00	19 44	19 17	18 50	18 24	17 58	17 32	17 07	16 40	16 14	15 48	15 22	14 57	10	00
	10	18 11	17 47	17 22	16 58	16 33	16 09	15 46	15 21	14 58	14 34	14 10	13 45		10
	20	16 38	16 15	15 53	15 31	15 08	14 46	14 24	14 03	13 40	13 18	12 56	12 34		20
	30	15 02	14 43	14 22	14 02	13 42	13 22	13 02	12 41	12 22	12 02	11 42	11 22		30
	40	13 26	13 07	12 50	12 32	12 14	11 56	11 38	11 20	11 02	10 44	10 26	10 08		40
	50	11 49	11 32	11 16	11 00	10 44	10 28	10 13	9 57	9 41	9 26	9 10	8 54		50
11	00	10 09	9 55	9 41	9 28	9 15	9 01	8 47	8 33	8 20	8 06	7 53	7 39	11	00
	10	8 29	8 17	8 07	7 55	7 43	7 32	7 21	7 10	6 58	6 47	6 35	6 24		10
	20	6 48	6 40	6 30	6 21	6 12	6 02	5 53	5 44	5 35	5 26	5 17	5 08		20
	30	5 07	5 00	4 53	4 46	4 39	4 32	4 25	4 19	4 12	4 05	3 58	3 51		30
	40	3 25	3 20	3 16	3 11	3 06	3 02	2 57	2 53	2 48	2 44	2 39	2 34		40
	50	1 43	1 40	1 38	1 36	1 33	1 31	1 29	1 26	1 24	1 22	1 20	1 18		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 30°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 30°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	o	o	o	o	o	o	c	o	o	o	o	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	2 30	2 21	2 13	2 05	1 58	1 50	1 43	1 38	1 31	1 26	1 20		10	
	20	4 58	4 41	4 25	4 08	3 54	3 40	3 27	3 15	3 02	2 50	2 39		20	
	30	7 24	6 58	6 34	6 12	5 50	5 29	5 09	4 50	4 31	4 14	3 57		30	
	40	9 47	9 14	8 41	8 11	7 42	7 15	6 49	6 24	6 00	5 38	5 15		40	
	50	12 05	11 24	10 45	10 08	9 33	8 59	8 27	7 57	7 27	6 59	6 32		50	
1	00	14 17	13 29	12 43	12 00	11 19	10 40	10 03	9 26	8 51	8 18	7 46	1	00	
	10	16 23	15 29	14 38	13 49	13 02	12 18	11 34	10 53	10 14	9 35	8 59		10	
	20	18 22	17 23	16 27	15 32	14 41	13 51	13 03	12 17	11 33	10 50	10 09		20	
	30	20 14	19 10	18 10	17 11	16 15	15 20	14 28	13 38	12 50	12 02	11 17		30	
	40	21 59	20 52	19 47	18 44	17 44	16 45	15 49	14 55	14 03	13 12	12 22		40	
	50	23 37	22 26	21 17	20 11	19 07	18 05	17 06	16 08	15 12	14 17	13 23		50	
2	00	25 07	23 53	22 41	21 32	20 26	19 21	18 17	17 17	16 18	15 20	14 25	2	00	
	10	26 29	25 14	24 00	22 48	21 39	20 31	19 25	18 22	17 20	16 19	15 21		10	
	20	27 44	26 27	25 11	23 58	22 47	21 37	20 29	19 23	18 18	17 15	16 14		20	
	30	28 54	27 35	26 18	25 03	23 50	22 38	21 28	20 20	19 12	18 07	17 04		30	
	40	29 56	28 35	27 15	26 01	24 47	23 34	22 22	21 12	20 04	18 56	17 50		40	
	50	30 51	29 31	28 11	26 54	25 39	24 25	23 12	22 01	20 50	19 41	18 34		50	
3	00	31 40	30 19	29 01	27 43	26 27	25 12	23 57	22 44	21 33	20 23	19 14	3	00	
	10	32 24	31 04	29 44	28 26	27 09	25 54	24 38	23 25	22 13	21 01	19 51		10	
	20	33 01	31 41	30 22	29 04	27 47	26 31	25 16	24 02	22 48	21 36	20 25		20	
	30	33 34	32 15	30 55	29 37	28 20	27 04	25 48	24 34	23 20	22 07	20 56		30	
	40	34 01	32 43	31 24	30 06	28 50	27 33	26 17	25 02	23 48	22 35	21 22		40	
	50	34 25	33 06	31 48	30 31	29 14	27 58	26 43	25 27	24 13	23 00	21 47		50	
4	00	34 43	33 26	32 08	30 51	29 35	28 19	27 03	25 48	24 35	23 21	22 08	4	00	
	10	34 57	33 41	32 24	31 08	29 52	28 37	27 22	26 08	24 53	23 39	22 26		10	
	20	35 07	33 51	32 35	31 20	30 05	28 51	27 36	26 21	25 08	23 54	22 41		20	
	30	35 13	33 59	32 44	31 29	30 15	29 01	27 47	26 33	25 20	24 06	22 53		30	
	40	35 16	34 02	32 48	31 34	30 21	29 08	27 54	26 41	25 28	24 16	23 03		40	
	50	35 14	34 03	32 50	31 37	30 24	29 12	27 59	26 47	25 34	24 22	23 10		50	
5	00	35 10	33 59	32 48	31 36	30 25	29 12	28 00	26 49	25 38	24 26	23 14	5	00	
	10	35 03	33 53	32 42	31 32	30 22	29 11	27 59	26 49	25 37	24 27	23 15		10	
	20	34 52	33 43	32 34	31 24	30 15	29 05	27 55	26 45	25 35	24 25	23 15		20	
	30	34 39	33 31	32 22	31 14	30 06	28 58	27 49	26 40	25 30	24 20	23 10		30	
	40	34 22	33 16	32 09	31 02	29 55	28 47	27 39	26 31	25 23	24 15	23 06		40	
	50	34 03	32 58	31 52	30 46	29 40	28 34	27 27	26 20	25 13	24 06	22 58		50	
6	00	33 42	32 38	31 32	30 28	29 24	28 19	27 13	26 07	25 00	23 54	22 48	6	00	
	10	33 17	32 14	31 11	30 08	29 05	28 01	26 56	25 51	24 47	23 41	22 36		10	
	20	32 50	31 49	30 47	29 44	28 42	27 40	26 37	25 33	24 30	23 26	22 21		20	
	30	32 21	31 21	30 20	29 20	28 19	27 17	26 15	25 13	24 10	23 07	22 04		30	
	40	31 50	30 51	29 51	28 51	27 52	26 52	25 51	24 51	23 50	22 48	21 45		40	
	50	31 16	30 18	29 20	28 22	27 24	26 25	25 26	24 27	23 27	22 26	21 25		50	
7	00	30 40	29 44	28 47	27 50	26 54	25 56	24 58	24 00	23 01	22 02	21 03	7	00	
	10	30 01	29 07	28 11	27 16	26 21	25 25	24 28	23 31	22 34	21 37	20 39		10	
	20	29 21	28 28	27 34	26 40	25 47	24 52	23 57	23 01	22 05	21 09	20 13		20	
	30	28 38	27 47	26 54	26 02	25 10	24 16	23 23	22 29	21 35	20 41	19 46		30	
	40	27 54	27 04	26 13	25 22	24 32	23 40	22 47	21 55	21 03	20 10	19 16		40	
	50	27 08	26 19	25 30	24 41	23 51	23 01	22 11	21 20	20 29	19 37	18 46		50	
8	00	26 19	25 32	24 45	23 57	23 09	22 20	21 31	20 43	19 54	19 03	18 13	8	00	
	10	25 30	24 44	23 58	23 12	22 25	21 39	20 51	20 04	19 16	18 27	17 40		10	
	20	24 38	23 53	23 09	22 25	21 40	20 54	20 09	19 24	18 38	17 51	17 05		20	
	30	23 44	23 02	22 19	21 36	20 53	20 09	19 25	18 42	17 58	17 13	16 28		30	
	40	22 49	22 08	21 27	20 46	20 05	19 23	18 41	17 59	17 16	16 33	15 50		40	
	50	21 51	21 13	20 33	19 54	19 14	18 34	17 54	17 14	16 33	15 52	15 10		50	
9	00	20 53	20 16	19 38	19 00	18 22	17 44	17 05	16 27	15 49	15 10	14 30	9	00	
	10	19 52	19 17	18 41	18 05	17 29	16 53	16 16	15 40	15 03	14 26	13 49		10	
	20	18 51	18 17	17 43	17 09	16 35	16 01	15 26	14 52	14 17	13 41	13 06		20	
	30	17 48	17 16	16 44	16 12	15 39	15 06	14 34	14 02	13 28	12 55	12 22		30	
	40	16 43	16 13	15 42	15 12	14 42	14 12	13 41	13 11	12 39	12 09	11 38		40	
	50	15 38	15 10	14 41	14 13	13 45	13 17	12 47	12 18	11 50	11 21	10 51		50	
10	00	14 30	14 04	13 38	13 11	12 46	12 19	11 53	11 26	10 59	10 32	10 05	10	00	
	10	13 22	12 58	12 33	12 09	11 46	11 21	10 56	10 32	10 08	9 42	9 17		10	
	20	12 13	11 51	11 28	11 06	10 44	10 22	9 59	9 37	9 14	8 52	8 29		20	
	30	11 02	10 43	10 22	10 02	9 43	9 22	9 02	8 42	8 22	8 01	7 40		30	
	40	9 50	9 33	9 15	8 57	8 40	8 22	8 04	7 45	7 27	7 09	6 50		40	
	50	8 39	8 24	8 07	7 52	7 37	7 21	7 05	6 49	6 33	6 17	6 00		50	
11	00	7 26	7 13	6 59	6 45	6 32	6 19	6 05	5 52	5 38	5 24	5 10	11	00	
	10	6 12	6 02	5 50	5 39	5 28	5 17	5 05	4 54	4 42	4 31	4 19		10	
	20	4 59	4 50	4 41	4 32	4 23	4 13	4 04	3 55	3 46	3 36	3 28		20	
	30	3 45	3 38	3 31	3 24	3 17	3 11	3 04	2 57	2 50	2 43	2 36		30	
	40	2 30	2 26	2 20	2 16	2 12	2 07	2 03	1 58	1 54	1 49	1 44		40	
	50	1 15	1 12	1 10	1 08	1 06	1 04	1 01	0 59	0 57	0 54	0 52		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 31°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 31°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.			
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00		
	10	161 50	159 12	155 40	150 44	143 25	132 06	114 16	89 21	64 14	46 00	34 27	26 59	0	10		
	20	146 28	142 27	137 28	131 12	123 20	113 32	101 48	88 43	75 31	63 26	53 14	45 01	0	20		
	30	134 40	130 22	125 20	119 31	113 48	105 13	96 53	88 04	79 10	70 35	62 39	55 32	0	30		
	40	125 52	121 46	117 10	112 05	106 30	100 28	94 03	87 25	80 43	74 07	67 46	61 50	0	40		
	50	119 15	115 28	111 23	106 58	102 16	97 18	92 00	86 46	81 23	76 02	70 49	65 47	0	50		
1	00	114 07	110 43	107 04	103 13	99 09	94 56	90 35	86 07	81 37	77 08	72 41	68 22	1	00		
	10	110 02	106 56	103 40	100 16	96 43	93 04	89 18	85 28	81 36	77 43	73 52	70 04	1	10		
	20	106 40	103 51	100 54	97 52	94 43	91 29	88 10	84 49	81 25	78 0						

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 31°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 31°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
		00	00	00	00	00	00	00	00	00	00	00	00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	21 58	18 22	15 42	13 38	12 02	10 44	9 37	8 43	7 56	7 15	6 40	6 09	0	10
0	20	38 28	33 16	29 06	25 43	22 56	20 35	18 37	16 56	15 29	14 13	13 06	12 07	0	20
0	30	49 20	43 59	39 22	35 26	32 02	29 06	26 33	24 20	22 22	20 38	19 06	17 43	0	30
0	40	56 22	51 24	46 54	42 54	39 19	36 08	33 16	30 44	28 27	26 24	24 32	22 51	0	40
0	50	61 00	56 32	52 23	48 32	45 00	41 47	38 49	36 07	33 40	31 25	29 21	27 28	0	50
1	00	64 10	60 10	56 22	52 46	49 25	46 15	43 20	40 37	38 05	35 44	33 34	31 32	1	00
1	10	66 22	62 46	59 19	56 00	52 50	49 50	46 59	44 18	41 47	39 25	37 11	35 06	1	10
1	20	67 55	64 40	61 30	58 26	55 29	52 39	49 55	47 20	44 51	42 30	40 16	38 09	1	20
1	30	69 00	66 03	63 09	60 18	57 32	54 52	52 17	49 47	47 24	45 06	42 54	40 48	1	30
1	40	69 44	67 01	64 21	61 43	59 09	56 38	54 11	51 48	49 30	47 16	45 08	43 03	1	40
1	50	70 14	67 44	65 15	62 48	60 23	58 01	55 42	53 26	51 14	49 04	46 59	44 58	1	50
2	00	70 32	68 13	65 54	63 36	61 21	59 07	56 55	54 45	52 39	50 34	48 33	46 34	2	00
2	10	70 41	68 32	66 21	64 12	62 04	59 57	57 52	55 49	53 48	51 48	49 51	47 56	2	10
2	20	70 42	68 40	66 30	64 36	62 36	60 36	58 37	56 39	54 43	52 48	50 55	49 04	2	20
2	30	70 37	68 42	66 47	64 52	62 58	61 04	59 11	57 18	55 27	53 37	51 48	50 01	2	30
2	40	70 27	68 39	66 50	65 01	63 12	61 24	59 36	57 48	56 02	54 16	52 31	50 47	2	40
2	50	70 13	68 30	66 46	65 03	63 19	61 36	59 52	58 09	56 27	54 45	53 04	51 23	2	50
3	00	69 55	68 16	66 38	64 59	63 20	61 41	60 02	58 24	56 45	55 07	53 29	51 49	3	00
3	10	69 33	67 59	66 26	64 51	63 16	61 42	60 06	58 31	56 57	55 22	53 47	52 14	3	10
3	20	69 09	67 41	66 09	64 38	63 08	61 37	60 05	58 33	57 02	55 31	54 00	52 29	3	20
3	30	68 43	67 16	65 49	64 22	62 55	61 27	60 00	58 31	57 03	55 35	54 07	52 38	3	30
3	40	68 13	66 50	65 27	64 03	62 39	61 14	59 47	58 24	56 59	55 33	54 08	52 43	3	40
3	50	67 41	66 21	65 01	63 40	62 19	60 58	59 35	58 13	56 50	55 28	54 05	52 42	3	50
4	00	67 08	65 51	64 33	63 15	61 56	60 37	59 18	57 58	56 38	55 18	53 58	52 37	4	00
4	10	66 32	65 18	64 02	62 47	61 31	60 14	58 57	57 40	56 22	55 05	53 47	52 28	4	10
4	20	65 55	64 42	63 30	62 16	61 02	59 48	58 33	57 18	56 04	54 47	53 32	52 15	4	20
4	30	65 15	64 05	62 54	61 43	60 32	59 20	58 07	56 54	55 41	54 27	53 14	52 00	4	30
4	40	64 35	63 26	62 18	61 08	59 59	58 48	57 38	56 27	55 16	54 05	52 52	51 40	4	40
4	50	63 52	62 46	61 39	60 31	59 23	58 15	57 06	55 57	54 48	53 38	52 28	51 17	4	50
5	00	63 08	62 03	60 57	59 51	58 46	57 39	56 32	55 24	54 17	53 09	52 01	50 52	5	00
5	10	62 21	61 18	60 15	59 11	58 05	57 00	55 56	54 50	53 44	52 38	51 32	50 24	5	10
5	20	61 34	60 32	59 29	58 27	57 24	56 21	55 17	54 13	53 09	52 04	51 00	49 53	5	20
5	30	60 45	59 44	58 43	57 41	56 40	55 38	54 35	53 34	52 31	51 28	50 24	49 19	5	30
5	40	59 53	58 54	57 55	56 54	55 54	54 54	53 53	52 52	51 50	50 48	49 46	48 44	5	40
5	50	59 00	58 02	57 04	56 05	55 06	54 08	53 08	52 08	51 08	50 07	49 07	48 05	5	50
6	00	58 08	57 08	56 12	55 14	54 17	53 18	52 20	51 22	50 23	49 24	48 25	47 25	6	00
6	10	57 08	56 13	55 17	54 20	53 25	52 28	51 31	50 34	49 36	48 38	47 40	46 41	6	10
6	20	56 10	55 15	54 21	53 26	52 31	51 35	50 40	49 44	48 47	47 51	46 54	45 57	6	20
6	30	55 09	54 16	53 23	52 29	51 34	50 40	49 46	48 50	47 55	47 01	46 05	45 09	6	30
6	40	54 07	53 15	52 23	51 30	50 37	49 43	48 49	47 56	47 02	46 08	45 14	44 19	6	40
6	50	53 04	52 12	51 20	50 28	49 37	48 45	47 52	46 59	46 07	45 13	44 20	43 27	6	50
7	00	51 57	51 07	50 16	49 25	48 34	47 42	46 51	46 00	45 09	44 17	43 25	42 32	7	00
7	10	50 48	49 59	49 09	48 19	47 30	46 39	45 50	44 59	44 09	43 18	42 28	41 36	7	10
7	20	49 37	48 49	48 01	47 11	46 22	45 34	44 45	43 56	43 07	42 17	41 27	40 37	7	20
7	30	48 25	47 37	46 50	46 02	45 14	44 26	43 39	42 50	42 02	41 14	40 25	39 37	7	30
7	40	47 09	46 23	45 37	44 50	44 03	43 16	42 29	41 42	40 55	40 08	39 21	38 33	7	40
7	50	45 52	45 06	44 21	43 36	42 49	42 04	41 19	40 33	39 47	39 01	38 15	37 29	7	50
8	00	44 32	43 47	43 03	42 18	41 34	40 48	40 05	39 20	38 35	37 51	37 06	36 21	8	00
8	10	43 09	42 26	41 42	40 59	40 15	39 32	38 48	38 06	37 22	36 39	35 55	35 11	8	10
8	20	41 44	41 02	40 19	39 37	38 54	38 12	37 31	36 48	36 06	35 25	34 42	33 59	8	20
8	30	40 16	39 35	38 54	38 13	37 31	36 51	36 10	35 29	34 48	34 08	33 27	32 46	8	30
8	40	38 46	38 06	37 26	36 46	36 07	35 26	34 47	34 07	33 29	32 49	32 09	31 30	8	40
8	50	37 13	36 35	35 56	35 16	34 38	34 00	33 22	32 43	32 05	31 28	30 50	30 12	8	50
9	00	35 38	34 59	34 23	33 45	33 08	32 32	31 54	31 17	30 41	30 04	29 28	28 52	9	00
9	10	33 58	33 23	32 46	32 10	31 35	30 59	30 24	29 48	29 13	28 38	28 04	27 29	9	10
9	20	32 18	31 42	31 08	30 33	30 00	29 25	28 52	28 17	27 45	27 12	26 38	26 04	9	20
9	30	30 33	29 59	29 27	28 54	28 22	27 49	27 17	26 44	26 14	25 41	25 10	24 38	9	30
9	40	28 46	28 15	27 43	27 12	26 41	26 11	25 40	25 09	24 39	24 09	23 39	23 09	9	40
9	50	26 57	26 27	25 57	25 28	24 58	24 29	24 01	23 32	23 04	22 36	22 07	21 39	9	50
10	00	25 05	24 36	24 09	23 41	23 13	22 47	22 19	21 51	21 26	21 00	20 33	20 07	10	00
10	10	23 09	22 43	22 18	21 52	21 26	21 00	20 36	20 11	19 46	19 22	18 58	18 33	10	10
10	20	21 12	20 48	20 25	20 00	19 37	19 14	18 50	18 27	18 05	17 42	17 20	16 58	10	20
10	30	19 12	18 50	18 28	18 07	17 45	17 24	17 03	16 42	16 21	16 01	15 41	15 21	10	30
10	40	17 10	16 51	16 31	16 11	15 52	15 33	15 14	14 56	14 37	14 18	14 00	13 41	10	40
10	50	15 06	14 49	14 32	14 14	13 57	13 40	13 24	13 07	12 51	12 34	12 19	12 02	10	50
11	00	13 00	12 45	12 30	12 16	12 00	11 46	11 31	11 17	11 03	10 49	10 35	10 21	11	00
11	10	10 53	10 40	10 27	10 15	10 03	9 50	9 38	9 26	9 14	9 03	8 51	8 40	11	10
11	20	8 44	8 34	8 24	8 13	8 04	7 54	7 44	7 35	7 25	7 15	7 06	6 56	11	20
11	30	6 34	6 26	6 18	6 11	6 03	5 56	5 49	5 42	5 34	5 27	5 20	5 13	11	30
11	40	4 23	4 17	4 13	4 08	4 03	3 58	3 53	3 48	3 44	3 39	3 34	3 29	11	40
11	50	2 12	2 09	2 06	2 04	2 02	1 59	1 56	1 54	1 51	1 49	1 46	1 44	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 31°.			DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 31°.		
Hour Angle.			48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.				
h.	m.		o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.			
0	00		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00			
	10		5 42	5 17	4 55	4 35	4 17	4 00	3 45	3 31	3 18	3 07	2 55	2 44		10			
	20		11 13	10 26	9 43	9 05	8 29	7 57	7 27	6 59	6 34	6 10	5 48	5 27		20			
	30		16 28	15 21	14 20	13 24	12 33	11 46	11 02	10 22	10 44	9 09	8 37	8 07		30			
	40		21 20	19 56	18 39	17 28	16 25	15 24	14 29	13 37	12 49	12 04							

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 31°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 31°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.
h.	m.	o	o	o	o	o	o	o	o	o	o	o	h.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	00
	10	2 35	2 25	2 17	2 08	2 00	1 54	1 46	1 39	1 33	1 27	1 22	10
	20	5 07	4 49	4 32	4 16	4 01	3 45	3 32	3 19	3 06	2 54	2 42	20
	30	7 38	7 11	6 45	6 22	5 59	5 37	5 16	4 59	4 38	4 20	4 03	30
	40	10 05	9 29	8 56	8 24	7 55	7 26	6 59	6 33	6 08	5 45	5 22	40
	50	12 20	11 43	11 02	10 24	9 47	9 12	8 39	8 07	7 37	7 08	6 40	50
1	00	14 42	13 52	13 04	12 20	11 36	10 56	10 17	9 39	9 04	8 29	7 56	1
	10	16 51	15 55	15 01	14 10	13 22	12 35	11 50	11 08	10 27	9 47	9 10	10
	20	18 57	17 51	16 52	15 56	15 02	14 11	13 21	12 33	11 47	11 04	10 21	20
	30	20 47	19 40	18 37	17 37	16 38	15 42	14 47	13 56	13 05	12 15	11 31	30
	40	22 33	21 22	20 15	19 10	18 08	17 07	16 10	15 13	14 19	13 28	12 37	40
	50	24 12	22 58	21 47	20 39	19 33	18 29	17 27	16 28	15 30	14 34	13 40	50
2	00	25 43	24 27	23 12	22 02	20 52	19 45	18 41	17 38	16 37	15 38	14 41	2
	10	27 06	25 47	24 31	23 18	22 06	20 56	19 49	18 44	17 40	16 38	15 38	10
	20	28 21	27 01	25 44	24 29	23 15	22 03	20 53	19 45	18 39	17 34	16 32	20
	30	29 31	28 09	26 50	25 33	24 17	23 04	21 52	20 42	19 34	18 27	17 22	30
	40	30 31	29 10	27 49	26 32	25 15	24 00	22 47	21 35	20 25	19 16	18 09	40
	50	31 27	30 05	28 44	27 25	26 07	24 51	23 37	22 23	21 12	20 02	18 52	50
3	00	32 16	30 53	29 32	28 12	26 54	25 37	24 22	23 07	21 55	20 44	19 33	3
	10	33 58	31 36	30 15	28 55	27 37	26 19	25 03	23 48	22 34	21 22	20 10	10
	20	35 35	33 13	31 52	30 33	29 14	27 57	26 40	25 24	24 10	22 56	21 43	20
	30	37 07	34 46	33 25	32 06	30 48	29 30	28 13	26 57	25 42	24 27	23 14	30
	40	38 34	36 13	34 53	33 35	32 16	30 58	29 41	28 25	27 09	25 54	24 41	40
	50	39 56	37 35	36 16	34 59	33 41	32 22	31 06	29 49	28 33	27 17	26 05	50
4	00	35 13	33 54	32 35	31 17	30 00	28 43	27 27	26 10	24 55	23 41	22 26	4
	10	35 26	34 07	32 50	31 33	30 17	29 00	27 44	26 28	25 13	23 58	22 43	10
	20	35 34	34 18	33 01	31 45	30 29	29 13	27 58	26 42	25 28	24 13	22 58	20
	30	35 39	34 23	33 07	31 53	30 38	29 22	28 08	26 53	25 38	24 25	23 10	30
	40	35 41	34 26	33 12	31 57	30 43	29 29	28 15	27 00	25 47	24 33	23 20	40
	50	35 39	34 26	33 12	31 59	30 45	29 32	28 19	27 05	25 52	24 39	23 26	50
5	00	35 33	34 21	33 09	31 57	30 44	29 32	28 19	27 07	25 55	24 43	23 30	5
	10	35 25	34 14	33 02	31 51	30 40	29 29	28 17	27 05	25 54	24 43	23 31	10
	20	35 13	34 03	32 53	31 44	30 33	29 24	28 13	27 01	25 51	24 40	23 30	20
	30	34 58	33 50	32 41	31 33	30 24	29 14	28 05	26 55	25 45	24 36	23 25	30
	40	34 40	33 34	32 27	31 19	30 12	29 03	27 55	26 46	25 38	24 29	23 19	40
	50	34 21	33 15	32 08	31 03	29 57	28 49	27 42	26 35	25 27	24 19	23 11	50
6	00	33 58	32 53	31 48	30 44	29 38	28 33	27 27	26 21	25 14	24 08	23 01	6
	10	33 32	32 29	31 25	30 22	29 18	28 14	27 09	26 04	24 59	23 53	22 48	10
	20	33 05	32 03	31 00	29 58	28 56	27 53	26 49	25 46	24 42	23 37	22 33	20
	30	32 34	31 33	30 33	29 32	28 31	27 29	26 27	25 24	24 22	23 19	22 15	30
	40	32 02	31 02	30 03	29 04	28 04	27 04	26 03	25 02	24 00	22 59	21 56	40
	50	31 27	30 29	29 32	28 34	27 35	26 36	25 36	24 36	23 37	22 37	21 36	50
7	00	30 50	29 54	28 57	28 01	27 03	26 06	25 08	24 10	23 12	22 13	21 13	7
	10	30 12	29 16	28 21	27 26	26 30	25 34	24 38	23 41	22 44	21 47	20 48	10
	20	29 31	28 37	27 43	26 49	25 55	25 00	24 06	23 10	22 15	21 19	20 21	20
	30	28 47	27 55	27 02	26 10	25 19	24 25	23 31	22 38	21 44	20 49	19 54	30
	40	28 02	27 11	26 20	25 30	24 39	23 48	22 56	22 03	21 10	20 18	19 24	40
	50	27 15	26 26	25 37	24 48	23 58	23 09	22 18	21 27	20 37	19 45	18 53	50
8	00	26 26	25 38	24 51	24 03	23 16	22 27	21 38	20 49	20 00	19 10	18 20	8
	10	25 36	24 50	24 04	23 18	22 31	21 44	20 57	20 10	19 23	18 35	17 48	10
	20	24 43	23 58	23 13	22 30	21 45	21 00	20 15	19 29	18 44	17 59	17 14	20
	30	23 49	23 05	22 23	21 41	20 57	20 14	19 30	18 46	18 03	17 20	16 37	30
	40	22 53	22 12	21 30	20 50	20 09	19 27	18 45	18 03	17 21	16 40	15 59	40
	50	21 55	21 15	20 36	19 58	19 18	18 38	17 59	17 17	16 38	15 50	15 20	50
9	00	20 56	20 19	19 41	19 04	18 26	17 48	17 11	16 32	15 52	15 12	14 32	9
	10	19 56	19 19	18 44	18 08	17 33	16 56	16 20	15 43	15 07	14 31	13 55	10
	20	18 54	18 20	17 45	17 12	16 38	16 04	15 28	14 54	14 20	13 46	13 12	20
	30	17 49	17 18	16 46	16 14	15 42	15 10	14 37	14 04	13 32	13 00	12 28	30
	40	16 44	16 14	15 44	15 14	14 45	14 14	13 44	13 13	12 43	12 13	11 43	40
	50	15 38	15 10	14 43	14 15	13 47	13 19	12 50	12 21	11 53	11 25	10 57	50
10	00	14 31	14 05	13 39	13 13	12 47	12 21	11 54	11 28	11 01	10 34	10 07	10
	10	13 22	12 56	12 34	12 11	11 47	11 23	10 58	10 33	10 09	9 45	9 21	10
	20	12 13	11 52	11 29	11 08	10 46	10 23	10 01	9 39	9 17	8 55	8 33	20
	30	11 03	10 43	10 23	10 03	9 43	9 23	9 04	8 43	8 23	8 03	7 43	30
	40	9 52	9 33	9 16	8 58	8 41	8 23	8 05	7 47	7 29	7 11	6 53	40
	50	8 39	8 23	8 08	7 52	7 37	7 21	7 05	6 50	6 34	6 18	6 02	50
11	00	7 26	7 13	6 59	6 46	6 33	6 19	6 06	5 52	5 39	5 26	5 13	11
	10	6 13	6 02	5 51	5 39	5 28	5 18	5 06	4 54	4 43	4 30	4 18	10
	20	4 59	4 50	4 41	4 32	4 24	4 14	4 05	3 50	3 47	3 38	3 28	20
	30	3 45	3 38	3 31	3 24	3 17	3 11	3 04	2 57	2 50	2 43	2 37	30
	40	2 29	2 25	2 21	2 16	2 12	2 07	2 03	1 58	1 54	1 49	1 45	40
	50	1 15	1 13	1 11	1 09	1 06	1 04	1 02	1 00	0 57	0 55	0 53	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

LATITUDE 32°.

DECLINATION—SAME NAME AS—LATITUDE.

LATITUDE 32°.

Hour Angle.	24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.
<div><div>h.</div><div>m.</div></div>	<div><div>°</div><div>'</div></div>	<div><div>°</div><div>'</div></div>	<div><div>°</div><div>'</div></div>	<div><div>°</div><div>'</div></div>	<div><div>°</div><div>'</div></div>	<div><div>°</div><div>'</div></div>	<div><div>°</div><div>'</div></div>	<div><div>°</div><div>'</div></div>	<div><div>°</div><div>'</div></div>	<div><div>°</div><div>'</div></div>	<div><div>°</div><div>'</div></div>	<div><div>°</div><div>'</div></div>	<div><div>h.</div><div>m.</div></div>
0	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0
10	163 59	161 58	159 22	155 51	150 56	143 41	132 22	114 28	89 20	63 58	45 41	34 07	10
20	149 54	146 39	142 40	137 42	131 27	123 34	113 43	101 53	88 40	75 19	63 09	52 54	20
30	138 34	134 52	130 35	125 33	119 42	112 58	105 20	96 54	88 01	79 01	70 20	62 20	30
40	129 43	126 03	121 56	117 10	112 14	106 36	100 31	94 03	87 21	80 34	73 53	67 30	40
50	122 51	119 23	115 36	111 30	107 04	102 19	97 18	92 03	86 41	81 14	75 49	70 32	50
1	117 25	114 13	110 48	107 08	103 15	99 11	94 55	90 31	86 01	81 27	76 55	72 26	1
10	113 01	110 04	106 59	103 42	100 16	96 42	93 00	89 12	85 20	81 25	77 30	73 37	10
20	109 23	106 41	103 51	100 54	97 49	94 40	91 24	88 03	84 40	81 13	77 47	74 20	20
30	106 16	103 49	101 14	98 32	95 46	92 55	90 00	87 01	83 59	80 55	77 51	74 46	30
40	103 40	101 21	98 57	96 30	93 58	91 23	88 44	86 02	83 18	80 32	77 45	74 58	40
50	101 20	99 11	96 59	94 42	92 22	90 00	87 34	85 07	82 37	80 06	77 33	74 59	50
2	99 15	97 14	95 10	93 05	90 55	88 43	86 29	84 13	81 55	79 35	77 16	74 54	2
10	97 21	95 28	93 33	91 35	89 34	87 32	85 28	83 21	81 13	79 04	76 54	74 43	10
20	95 38	93 52	92 03	90 12	88 19	86 24	84 29	82 31	80 31	78 30	76 28	74 27	20
30	94 01	92 21	90 38	88 54	87 08	85 20	83 31	81 40	79 48	77 55	76 01	74 06	30
40	92 32	90 56	89 19	87 40	86 00	84 18	82 35	80 51	79 05	77 18	75 31	73 42	40
50	91 07	89 36	88 04	86 30	84 54	83 18	81 40	80 01	78 21	76 41	74 58	73 16	50
3	89 46	88 19	86 51	85 22	83 51	82 20	80 46	79 12	77 37	76 01	74 24	72 47	3
10	88 29	87 05	85 41	84 16	82 49	81 21	79 53	78 23	76 52	75 21	73 49	72 16	10
20	87 14	85 54	84 34	83 11	81 48	80 25	79 00	77 33	76 07	74 40	73 12	71 43	20
30	86 02	84 45	83 27	82 08	80 48	79 29	78 07	76 44	75 21	73 58	72 33	71 07	30
40	84 52	83 37	82 22	81 07	79 49	78 32	77 13	75 55	74 35	73 14	71 53	70 31	40
50	83 43	82 31	81 18	80 05	78 51	77 36	76 21	75 04	73 47	72 30	71 12	69 53	50
4	82 36	81 26	80 16	79 05	77 52	76 41	75 27	74 14	72 59	71 44	70 39	69 32	4
10	81 29	80 21	79 03</										

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the **latitude** and **declination** are of **different name**, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 32°.				DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 32°.			
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.					
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.				
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00				
	10	26 42	21 41	18 09	15 30	13 28	11 51	10 33	9 28	8 35	7 48	7 07	6 33	1	10				
	20	44 39	38 06	32 55	28 46	25 23	22 36	20 17	18 20	16 40	15 14	13 58	12 52		20				
	30	55 11	48 57	43 35	38 58	35 01	31 39	28 43	26 11	23 59	22 01	20 18	18 47		30				
	40	61 31	56 00	51 03	46 29	42 25	38 54	35 41	32 51	30 19	28 02	25 59	24 08		40				
	50	65 29	60 39	56 09	51 57	48 05	44 34	41 19	38 22	35 40	33 12	30 58	28 54		50				
1	00	68 03	63 50	59 48	55 57	52 21	48 58	45 47	42 51	40 07	37 35	35 15	33 03	1	00				
	10	69 47	66 02	62 25	58 55	55 34	52 22	49 21	46 29	43 48	41 16	38 54	36 40		10				
	20	70 56	67 35	64 18	61 07	58 01	55 02	52 10	49 26	46 49	44 20	41 59	39 44		20				
	30	71 42	68 40	65 41	62 45	59 53	57 06	54 24	51 45	49 17	46 52	44 34	42 21		30				
	40	72 11	69 24	66 41	63 58	61 18	58 43	56 09	53 42	51 18	48 58	46 44	44 33		40				
	50	72 27	69 54	67 22	64 52	62 23	59 57	57 33	55 12	52 55	50 41	48 32	46 26		50				
2	00	72 32	70 12	67 51	65 30	63 12	60 54	58 38	56 26	54 15	52 06	50 01	47 59	2	00				
	10	72 31	70 19	68 08	65 56	63 46	61 37	59 29	57 21	55 18	53 15	51 15	49 17		10				
	20	72 24	70 20	68 17	66 13	64 11	62 09	60 07	58 07	56 08	54 11	52 15	50 21		20				
	30	72 11	70 14	68 19	66 23	64 26	62 31	60 36	58 41	56 47	54 55	53 03	51 14		30				
	40	71 53	70 04	68 14	66 25	64 34	62 44	60 54	59 05	57 17	55 28	53 42	51 55		40				
	50	71 32	69 49	68 05	66 20	64 36	62 51	61 06	59 21	57 38	55 55	54 11	52 29		50				
3	00	71 09	69 30	67 51	66 11	64 31	62 51	61 11	59 31	57 52	56 12	54 33	52 54	3	00				
	10	70 42	69 08	67 32	65 55	64 18	62 47	61 11	59 35	57 59	56 23	54 48	53 12		10				
	20	70 13	68 42	67 12	65 41	64 10	62 38	61 06	59 34	57 58	5								

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 32°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 32°.		
Hour Angle.		48°	49°	50°	51°												

AZIMUTH OR TRUE BEARING.

LATITUDE 32°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 32°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0
	10	2 39	2 30	2 20	2 12	2 04	1 56	1 49	1 42	1 36	1 29	1 23	
	20	5 18	4 59	4 40	4 23	4 07	3 52	3 38	3 23	3 10	2 58	2 46	
	30	7 52	7 24	6 58	6 32	6 08	5 46	5 24	5 04	4 45	4 26	4 08	
	40	10 23	9 47	9 12	8 38	8 08	7 37	7 09	6 43	6 17	5 53	5 29	
	50	12 48	12 03	11 22	10 42	10 03	9 27	8 52	8 19	7 47	7 17	6 48	
1	00	15 07	14 16	13 26	12 39	11 54	11 12	10 31	9 53	9 16	8 40	8 06	1
	10	17 20	16 21	15 26	14 33	13 42	12 54	12 07	11 23	10 41	10 01	9 22	
	20	19 24	18 20	17 19	16 20	15 24	14 31	13 40	12 51	12 04	11 18	10 34	
	30	21 21	20 11	19 06	18 03	17 02	16 04	15 08	14 14	13 23	12 32	11 45	
	40	23 09	21 56	20 46	19 38	18 34	17 31	16 31	15 33	14 38	13 44	12 52	
	50	24 48	23 33	22 19	21 08	20 00	18 54	17 50	16 49	15 50	14 52	13 57	
2	00	26 21	25 02	23 46	22 32	21 21	20 12	19 04	18 00	16 57	15 57	14 58	2
	10	27 44	26 23	25 05	23 49	22 35	21 23	20 14	19 06	18 01	16 58	15 56	
	20	29 00	27 37	26 17	24 59	23 44	22 31	21 19	20 08	19 00	17 54	16 50	
	30	30 08	28 45	27 24	26 04	24 48	23 32	22 18	21 06	19 56	18 48	17 42	
	40	31 10	29 46	28 23	27 03	25 45	24 29	23 13	21 59	20 47	19 37	18 29	
	50	32 04	30 40	29 18	27 57	26 37	25 19	24 02	22 47	21 34	20 23	19 13	
3	00	32 53	31 28	30 05	28 44	27 24	26 05	24 48	23 33	22 18	21 05	19 53	3
	10	33 35	32 10	30 47	29 27	28 07	26 48	25 29	24 12	22 57	21 43	20 30	
	20	34 11	32 47	31 25	30 04	28 43	27 24	26 06	24 48	23 32	22 17	21 04	
	30	34 41	33 18	31 56	30 36	29 16	27 57	26 38	25 20	24 04	22 48	21 34	
	40	35 07	33 45	32 24	31 03	29 43	28 24	27 06	25 49	24 32	23 16	22 01	
	50	35 28	34 06	32 46	31 27	30 07	28 48	27 30	26 12	24 55	23 40	22 25	
4	00	35 44	34 23	33 04	31 45	30 27	29 08	27 50	26 33	25 17	24 00	22 45	4
	10	35 55	34 37	33 18	32 00	30 42	29 24	28 06	26 50	25 34	24 18	23 03	
	20	36 03	34 46	33 28	32 11	30 53	29 36	28 20	27 04	25 48	24 32	23 18	
	30	36 07	34 50	33 34	32 18	31 02	29 46	28 30	27 14	25 58	24 43	23 29	
	40	36 07	34 52	33 37	32 21	31 06	29 51	28 35	27 21	26 07	24 52	23 38	
	50	36 04	34 50	33 36	32 22	31 07	29 54	28 39	27 25	26 11	24 57	23 44	
5	00	35 57	34 45	33 32	32 19	31 05	29 52	28 39	27 27	26 13	24 59	23 47	5
	10	35 48	34 36	33 25	32 13	31 01	29 49	28 37	27 24	26 12	24 59	23 47	
	20	35 35	34 24	33 14	32 04	30 52	29 42	28 31	27 20	26 08	24 57	23 46	
	30	35 19	34 09	33 01	31 51	30 42	29 32	28 23	27 12	26 02	24 52	23 41	
	40	35 00	33 52	32 45	31 37	30 29	29 20	28 11	27 03	25 53	24 44	23 35	
	50	34 38	33 32	32 26	31 20	30 13	29 06	27 58	26 50	25 42	24 33	23 25	
6	00	34 15	33 10	32 05	31 00	29 54	28 48	27 42	26 35	25 28	24 21	23 14	6
	10	33 48	32 45	31 41	30 38	29 33	28 29	27 24	26 19	25 15	24 11	23 07	
	20	33 19	32 17	31 15	30 10	29 06	28 06	27 03	25 59	24 54	23 50	22 48	
	30	32 48	31 47	30 47	29 40	28 44	27 42	26 40	25 38	24 34	23 31	22 28	
	40	32 15	31 16	30 16	29 16	28 16	27 16	26 15	25 14	24 12	23 10	22 08	
	50	31 39	30 42	29 44	28 45	27 46	26 47	25 48	24 48	23 48	22 48	21 46	
7	00	31 01	30 05	29 09	28 12	27 15	26 17	25 19	24 20	23 22	22 23	21 23	7
	10	30 22	29 26	28 32	27 37	26 41	25 44	24 47	23 51	22 53	21 56	20 58	
	20	29 39	28 46	27 53	26 59	26 05	25 10	24 15	23 19	22 24	21 28	20 32	
	30	28 55	28 03	27 12	26 20	25 27	24 33	23 40	22 47	21 53	20 58	20 03	
	40	28 09	27 19	26 29	25 38	24 47	23 56	23 04	22 12	21 18	20 26	19 33	
	50	27 22	26 33	25 45	24 55	24 06	23 15	22 25	21 35	20 44	19 52	19 01	
8	00	26 32	25 46	24 58	24 10	23 22	22 34	21 45	20 56	20 07	19 18	18 27	8
	10	25 41	24 56	24 10	23 24	22 38	21 51	21 04	20 17	19 30	18 42	17 53	
	20	24 47	24 04	23 20	22 36	21 51	21 06	20 21	19 36	18 49	18 03	17 17	
	30	23 53	23 11	22 29	21 46	21 03	20 20	19 36	18 52	18 09	17 24	16 39	
	40	22 57	22 16	21 36	20 55	20 14	19 32	18 51	18 08	17 26	16 43	16 00	
	50	21 58	21 19	20 41	20 02	19 23	18 42	18 03	17 23	16 42	16 01	15 21	
9	00	20 59	20 22	19 45	19 08	18 30	17 52	17 14	16 36	15 57	15 18	14 39	9
	10	19 57	19 23	18 47	18 12	17 36	17 00	16 24	15 48	15 11	14 34	13 57	
	20	18 56	18 21	17 48	17 15	16 41	16 07	15 33	14 58	14 23	13 48	13 13	
	30	17 51	17 20	16 49	16 17	15 44	15 12	14 40	14 08	13 35	13 02	12 29	
	40	16 46	16 16	15 47	15 18	14 47	14 17	13 47	13 17	12 45	12 15	11 43	
	50	15 40	15 12	14 44	14 16	13 48	13 21	12 52	12 24	11 55	11 27	10 58	
10	00	14 32	14 07	13 41	13 15	12 49	12 23	11 56	11 31	11 04	10 37	10 11	10
	10	13 24	13 00	12 36	12 12	11 49	11 24	11 00	10 36	10 11	9 46	9 22	
	20	12 14	11 52	11 30	11 09	10 47	10 25	10 02	9 40	9 18	8 56	8 33	
	30	11 03	10 44	10 24	10 04	9 45	9 25	9 05	8 45	8 24	8 04	7 44	
	40	9 52	9 34	9 16	8 59	8 42	8 24	8 06	7 48	7 30	7 12	6 54	
	50	8 40	8 24	8 08	7 53	7 38	7 23	7 07	6 51	6 35	6 20	6 03	
11	00	7 27	7 14	7 00	6 47	6 34	6 20	6 07	5 54	5 40	5 26	5 12	11
	10	6 13	6 02	5 51	5 40	5 29	5 18	5 07	4 55	4 44	4 32	4 19	
	20	4 59	4 51	4 42	4 32	4 23	4 14	4 06	3 57	3 47	3 38	3 30	
	30	3 45	3 38	3 32	3 25	3 18	3 11	3 05	2 58	2 51	2 44	2 38	
	40	2 29	2 25	2 21	2 17	2 12	2 08	2 03	1 59	1 54	1 49	1 43	
	50	1 15	1 13	1 11	1 08	1 06	1 04	1 02	0 59	0 57	0 55	0 52	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 33°.				DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 33°.			
Hour Angle.		24°	25°	26°													

AZIMUTH OR TRUE BEARING.

LATITUDE 33°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 33°.		
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.			
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	33 48	26 24	21 26	17 55	15 17	13 17	11 41	10 24	9 19	8 26	7 40	7 00	1	10		
	20	52 33	44 16	37 44	32 35	28 25	25 02	22 18	19 59	18 03	16 18	14 58	13 44		20		
	30	62 01	54 50	48 33	43 10	38 34	34 37	31 15	28 20	25 48	23 36	21 40	19 58		30		
	40	67 13	61 09	55 36	50 35	46 04	42 02	38 27	35 15	32 24	29 53	27 37	25 34		40		
	50	70 17	65 09	60 17	55 45	51 32	47 38	44 05	40 51	37 53	35 11	32 43	30 30		50		
1	00	72 20	67 45	63 28	59 24	55 32	51 53	48 30	45 19	42 22	39 37	37 05	34 45	1	00		
	10	73 21	69 29	65 41	62 01	58 30	55 07	51 55	48 52	45 59	43 17	40 44	38 21		10		
	20	74 05	70 38	67 15	63 56	60 43	57 35	54 34	51 41	48 55	46 18	43 48	41 26		20		
	30	74 30	71 24	68 20	65 18	62 20	59 27	56 39	53 54	51 18	48 45	46 20	44 01		30		
	40	74 41	71 52	69 04	66 17	63 33	60 53	58 16	55 41	53 11	50 46	48 25	46 10		40		
	50	74 43	72 07	69 33	67 00	64 27	61 57	59 30	57 04	54 42	52 24	50 09	47 58		50		
2	00	74 36	72 13	69 51	67 28	65 07	62 46	60 28	58 10	55 55	53 43	51 34	49 27	2	00		
	10	74 24	72 11	69 58	67 45	65 33	63 21	61 11	59 00	56 52	54 47	52 43	50 42		10		
	20	74 07	72 03	69 58	67 53	65 49	63 45	61 41	59 38	57 37	55 37	53 38	51 42		20		
	30	73 46	71 49	69 52	67 55	65 57	63 59	62 03	60 06	58 11	56 15	54 22	52 30		30		
	40	73 22	71 32	69 41	67 49	65 59	64 07	62 16	60 25	58 35	56 45	54 56	53 06		40		
	50	73 55	71 10	69 25	67 39	65 54	64 08	62 23	60 36	58 51	57 05	55 21	53 37		50		
3	00	72 25	70 46	69 06	67 25	65 45	64 03	62 23	60 42	59 01	57 20	55 39	53 58	3	00		
	10	71 52	70 18	68 42	67 07	65 30	63 54	62 18	60 40	59 04	57 26	55 50	54 14		10		
	20	71 18	69 48	68 17	66 45	65 13	63 40	62 08	60 34	59 02	57 28	55 55	54 22		20		
	30	70 42	69 16	67 48	66 21	64 52	63 23	61 55	60 25	58 55	57 25	55 55	54 24		30		
	40	70 05	68 41	67 17	65 53	64 28	63 02	61 37	60 10	58 44	57 17	55 50	54 23		40		
	50	69 25	68 05	66 44	65 23	64 01	62 38	61 16	59 52	58 29	57 05	55 41	54 16		50		
4	00	68 44	67 27	66 09	64 50	63 31	62 12	60 52	59 31	58 10	56 49	55 27	54 06	4	00		
	10	68 02	66 47	65 31	64 16	62 59	61 42	60 25	59 06	57 48	56 29	55 11	53 52		10		
	20	67 18	66 05	64 53	63 39	62 25	61 10	59 54	58 40	57 24	56 08	54 51	53 34		20		
	30	66 33	65 22	64 11	63 00	61 48	60 35	59 23	58 10	56 56	55 42	54 27	53 13		30		
	40	65 46	64 37	63 28	62 19	61 10	59 59	58 49	57 37	56 26	55 14	54 01	52 49		40		
	50	64 58	63 51	62 44	61 37	60 29	59 20	58 12	57 02	55 53	54 43	53 32	52 21		50		
5	00	64 08	63 03	61 58	60 53	59 46	58 39	57 33	56 26	55 18	54 10	53 01	51 52	5	00		
	10	63 17	62 14	61 10	60 07	59 02	57 57	56 53	55 46	54 40	53 33	52 26	51 19		10		
	20	62 25	61 23	60 21	59 19	58 16	57 12	56 09	55 04	54 01	52 56	51 50	50 45		20		
	30	61 31	60 30	59 29	58 29	57 27	56 26	55 24	54 22	53 19	52 15	51 11	50 07		30		
	40	60 35	59 35	58 36	57 37	56 38	55 37	54 36	53 35	52 34	51 32	50 30	49 22		40		
	50	59 38	58 40	57 42	56 44	55 46	54 46	53 48	52 48	51 48	50 48	49 47	48 46		50		
6	00	58 39	57 43	56 40	55 49	54 51	53 54	52 57	51 58	51 00	50 00	49 01	48 02	6	00		
	10	57 39	56 43	55 48	54 52	53 57	53 00	52 04	51 06	50 10	49 12	48 14	47 16		10		
	20	56 37	55 42	54 48	53 53	52 59	52 03	51 09	50 13	49 17	48 20	47 24	46 27		20		
	30	55 32	54 40	53 47	52 53	51 59	51 05	50 12	49 18	48 23	47 27	46 32	45 36		30		
	40	54 26	53 35	52 43	51 51	50 58	50 05	49 13	48 20	47 26	46 33	45 38	44 33		40		
	50	53 19	52 29	51 37	50 47	49 55	49 03	48 12	47 20	46 28	45 35	44 42	43 49		50		
7	00	52 10	51 20	50 30	49 41	48 50	47 59	47 10	46 18	45 27	44 35	43 45	42 52	7	00		
	10	50 58	50 10	49 20	48 32	47 43	46 53	46 04	45 14	44 24	43 34	42 44	41 54		10		
	20	49 45	48 56	48 09	47 21	46 33	45 45	44 57	44 08	43 20	42 30	41 42	40 53		20		
	30	48 29	47 42	46 56	46 09	45 22	44 35	43 48	43 00	42 13	41 25	40 38	39 50		30		
	40	47 11	46 26	45 40	44 54	44 09	43 22	42 37	41 50	41 04	40 17	39 32	38 45		40		
	50	45 52	45 07	44 22	43 38	42 53	42 08	41 24	40 38	39 54	39 08	38 23	37 37		50		
8	00	44 29	43 45	43 02	42 18	41 34	40 51	40 08	39 24	38 39	37 56	37 13	36 28	8	00		
	10	43 05	42 22	41 40	40 57	40 15	39 32	38 51	38 08	37 25	36 42	36 00	35 17		10		
	20	41 38	40 56	40 15	39 34	38 52	38 11	37 30	36 49	36 08	35 26	34 45	34 05		20		
	30	40 08	39 28	38 48	38 08	37 27	36 48	36 08	35 29	34 49	34 09	33 29	32 50		30		
	40	38 37	37 58	37 18	36 39	36 01	35 22	34 44	34 05	33 27	32 48	32 09	31 30		40		
	50	37 02	36 24	35 47	35 09	34 31	33 54	33 17	32 40	32 03	31 26	30 48	30 12		50		
9	00	35 25	34 48	34 12	33 36	33 00	32 24	31 48	31 12	30 37	30 01	29 25	28 50	9	00		
	10	33 46	33 10	32 36	32 01	31 27	30 52	30 18	29 43	29 09	28 34	28 00	27 27		10		
	20	32 03	31 30	30 56	30 23	29 50	29 17	28 44	28 12	27 39	27 06	26 34	26 01		20		
	30	30 19	29 46	29 15	28 43	28 11	27 40	27 10	26 38	26 07	25 36	25 05	24 35		30		
	40	28 32	28 01	27 30	27 01	26 31	26 01	25 32	25 02	24 32	24 03	23 34	23 06		40		
	50	26 42	26 12	25 44	25 16	24 48	24 19	23 52	23 24	22 56	22 29	22 02	21 35		50		
10	00	24 50	24 23	23 56	23 29	23 03	22 37	22 11	21 45	21 19	20 53	20 28	20 03	10	00		
	10	22 55	22 29	22 05	21 40	21 15	20 51	20 27	20 03	19 39	19 15	18 52	18 28		10		
	20	20 58	20 34	20 12	19 50	19 26	19 04	18 43	18 20	17 58	17 36	17 14	16 53		20		
	30	18 59	18 38	18 17	17 56	17 36	17 15	16 55	16 34	16 15	15 55	15 36	15 16		30		
	40	16 58	16 39	16 19	16 02	15 43	15 24	15 07	14 48	14 31	14 12	13 55	13 38		40		
	50	14 55	14 38	14 22	14 05	13 49	13 33	13 16	13 00	12 45	12 29	12 13	11 58		50		
11	00	12 51	12 36	12 22	12 07	11 53	11 38	11 25	11 11	10 58	10 44	10 31	10 17	11	00		
	10	10 45	10 32	10 20	10 08	9 56	9 44	9 33	9 21	9 10	8 58	8 47	8 36		10		
	20	8 37	8 27	8 18	8 08	7 58	7 49	7 39	7 30	7 21	7 12	7 03	6 54		20		
	30	6 29	6 21	6 14	6 06	6 00	5 52	5 46	5 39	5 31	5 25	5 18	5 11		30		
	40	4 19	4 15	4 10	4 05	4 00	3 55	3 50	3 46	3 42	3 37	3 32	3 27		40		
	50	2 10	2 08	2 05	2 02	2 00	1 57	1 55	1 53	1 51	1 48	1 46	1 44		50		
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00		

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 33°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 33°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /												h.	m.
		0	1	2	3	4	5	6	7	8	9	10	11		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	6 26	5 55	5 29	5 04	4 43	4 23	4 05	3 49	3 34	3 21	3 08	2 56		10
	20	12 34	11 39	10 48	10 01	9 19	8 41	8 07	7 35	7 06	6 39	6 14	5 50		20
	30	18 27	17 05	15 51	14 45	13 45	12 50	11 59	11 14	10 31	9 51	9 15	8 41		30
	40	23 43	22 04	20 34	19 10	17 55	16 46	15 42	14 42	13 48	12 57	12 10	11 25		40
	50	28 26	26 33	24 50	23 14	21 47	20 24	19 10	18 00	16 55	15 54	14 58	14 04		50
1	00	32 33	30 32	28 40	26 55	25 18	23 47	22 24	21 05	19 50	18 40	17 35	16 34	1	00
	10	36 08	34 02	32 04	30 14	28 30	26 52	25 21	23 55	22 33	21 17	20 05	18 56		10
	20	39 07	37 03	35 03	33 08	31 20	29 38	28 02	26 30	25 03	23 41	22 24	21 09		20
	30	41 47	39 40	37 38	35 42	33 51	32 06	30 27	28 51	27 20	25 54	24 32	23 13		30
	40	43 59	41 54	39 53	37 56	36 05	34 18	32 37	30 59	29 24	27 55	26 29	25 06		40
	50	45 51	43 48	41 48	39 53	38 02	36 14	34 32	32 52	31 16	29 44	28 16	26 51		50
2	00	47 24	45 24	43 27	41 34	39 43	37 56	36 14	34 34	32 56	31 23	29 52	28 25	2	00
	10	48 42	46 45	44 51	43 00	41 11	39 25	37 43	36 03	34 25	32 51	31 20	29 50		10
	20	49 46	47 53	46 01	44 13	42 26	40 42	39 00	37 21	35 43	34 10	32 38	31 08		20
	30	50 38	48 49	47 01	45 15	43 31	41 48	40 08	38 29	36 53	35 19	33 47	32 17		30
	40	51 20	49 35	47 50	46 07	44 24	42 44	41 05	39 28	37 52	36 19	34 49	33 18		40
	50	51 54	50 11	48 30	46 49	45 09	43 31	41 54	40 19	38 44	37 12	35 42	34 12		50
3	00	52 18	50 39	49 01	47 24	45 47	44 10	42 36	41 02	39 29	37 58	36 28	34 59	3	00
	10	52 36	51 01	49 25	47 50	46 15	44 42	43 10	41 37	40 06	38 36	37 08	35 39		10
	20	52 48	51 15	49 43	48 10	46 38	45 07	43 36	42 06	40 36	39 08	37 41	36 13		20
	30	52 54	51 25	49 55	48 24	46 55	45 26	43 58	42 29	41 01	39 35	38 08	36 42		30
	40	52 55	51 28	50 00	48 33	47 06	45 40	44 14	42 46	41 20	39 56	38 31	37 05		40
	50	52 52	51 27	50 02	48 38	47 12	45 48	44 23	42 59	41 34	40 11	38 47	37 24		50
4	00	52 43	51 21	49 59	48 36	47 13	45 51	44 29	43 07	41 44	40 22	39 00	37 38	4	00
	10	52 31	51 12	49 51	48 31	47 11	45 50	44 30	43 09	41 48	40 28	39 08	37 47		10
	20	52 16	50 58	49 40	48 22	47 03	45 45	44 27	43 08	41 48	40 29	39 12	37 51		20
	30	51 57	50 42	49 26	48 10	46 53	45 36	44 20	43 02	41 45	40 28	39 11	37 53		30
	40	51 35	50 22	49 08	47 53	46 39	45 24	44 09	42 53	41 38	40 22	39 07	37 51		40
	50	51 10	49 59	48 46	47 34	46 21	45 08	43 55	42 42	41 28	40 14	39 00	37 44		50
5	00	50 42	49 32	48 22	47 12	46 00	44 49	43 37	42 26	41 13	40 01	38 49	37 35	5	00
	10	50 12	49 04	47 55	46 46	45 37	44 27	43 17	42 07	40 56	39 46	38 35	37 23		10
	20	49 39	48 32	47 25	46 18	45 11	44 03	42 54	41 46	40 36	39 27	38 18	37 07		20
	30	49 03	47 58	46 53	45 47	44 41	43 35	42 28	41 20	40 13	39 05	37 57	36 48		30
	40	48 25	47 21	46 18	45 14	44 09	43 04	41 59	40 54	39 47	38 41	37 35	36 27		40
	50	47 45	46 43	45 41	44 38	43 35	42 32	41 29	40 24	39 19	38 14	37 09	36 04		50
6	00	47 03	46 02	45 01	44 00	42 58	41 57	40 54	39 52	38 48	37 45	36 42	35 36	6	00
	10	46 17	45 18	44 18	43 19	42 19	41 19	40 18	39 16	38 15	37 13	36 11	35 08		10
	20	45 31	44 32	43 35	42 37	41 37	40 38	39 40	38 39	37 40	36 39	35 38	34 36		20
	30	44 41	43 45	42 48	41 52	40 54	39 56	38 59	38 00	37 01	36 02	35 04	34 03		30
	40	43 50	42 55	41 59	41 04	40 08	39 12	38 16	37 18	36 21	35 23	34 26	33 27		40
	50	42 56	42 03	41 09	40 15	39 20	38 26	37 30	36 35	35 38	34 42	33 47	32 49		50
7	00	42 01	41 09	40 15	39 23	38 30	37 36	36 43	35 49	34 54	34 00	33 05	32 09	7	00
	10	41 04	40 12	39 21	38 30	37 38	36 45	35 54	35 01	34 07	33 14	32 21	31 27		10
	20	40 04	39 14	38 24	37 34	36 43	35 53	35 02	34 10	33 18	32 27	31 35	30 43		20
	30	39 01	38 13	37 24	36 36	35 47	34 58	34 08	33 18	32 28	31 38	30 48	29 56		30
	40	37 59	37 11	36 23	35 36	34 48	34 01	33 13	32 25	31 35	30 46	29 58	29 08		40
	50	36 52	36 07	35 20	34 34	33 48	33 02	32 15	31 28	30 41	29 54	29 06	28 18		50
8	00	35 44	34 59	34 15	33 30	32 45	32 01	31 16	30 30	29 44	28 59	28 13	27 26	8	00
	10	34 34	33 51	33 08	32 25	31 42	30 58	30 14	29 30	28 46	28 02	27 18	26 33		10
	20	33 23	32 41	31 59	31 17	30 35	29 53	29 11	28 28	27 46	27 04	26 21	25 37		20
	30	32 09	31 28	30 47	30 07	29 27	28 46	28 06	27 25	26 44	26 03	25 22	24 40		30
	40	30 52	30 14	29 35	28 56	28 17	27 38	26 59	26 20	25 40	25 01	24 21	23 41		40
	50	29 35	28 58	28 20	27 42	27 05	26 28	25 51	25 13	24 35	23 58	23 20	22 41		50
9	00	28 15	27 39	27 03	26 27	25 52	25 16	24 41	24 04	23 28	22 52	22 16	21 39	9	00
	10	26 53	26 19	25 45	25 10	24 36	24 02	23 28	22 54	22 20	21 46	21 11	20 35		10
	20	25 29	24 56	24 24	23 52	23 19	22 48	22 15	21 42	21 09	20 37	20 04	19 31		20
	30	24 04	23 33	23 02	22 32	22 01	21 30	21 00	20 28	19 58	19 27	18 56	18 25		30
	40	22 36	22 07	21 38	21 09	20 41	20 12	19 43	19 14	18 45	18 16	17 47	17 17		40
	50	21 07	20 40	20 13	19 46	19 19	18 52	18 26	17 58	17 30	17 03	16 36	16 08		50
10	00	19 37	19 12	18 46	18 21	17 56	17 31	17 06	16 40	16 15	15 50	15 25	14 59	10	00
	10	18 05	17 41	17 18	16 55	16 32	16 08	15 45	15 21	14 58	14 35	14 12	13 48		10
	20	16 31	16 10	15 49	15 27	15 06	14 44	14 24	14 02	13 40	13 19	12 58	12 37		20
	30	14 57	14 37	14 17	13 58	13 39	13 20	13 00	12 41	12 21	12 02	11 43	11 24		30
	40	13 20	13 03	12 46	12 28	12 10	11 53	11 36	11 18	11 02	10 44	10 27	10 10		40
	50	11 43	11 27	11 12	10 57	10 42	10 26	10 11	9 56	9 41	9 26	9 11	8 55		50
11	00	10 04	9 51	9 38	9 25	9 12	8 59	8 45	8 32	8 20	8 06	7 53	7 41	11	00
	10	8 25	8 14	8 03	7 52	7 41	7 30	7 19	7 08	6 57	6 46	6 36	6 24		10
	20	6 45	6 36	6 27	6 19	6 10	6 01	5 52	5 43	5 34	5 26	5 17	5 08		20
	30	5 04	4 57	4 51	4 45	4 38	4 31	4 24	4 17	4 11	4 05	3 58	3 51		30
	40	3 23	3 18	3 14	3 10	3 05	3 00	2 56	2 52	2 48	2 43	2 39	2 34		40
	50	1 42	1 39	1 37	1 35	1 33	1 30	1 28	1 26	1 24	1 22	1 20	1 15		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 33°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 33°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	2 45	2 34	2 25	2 16	2 08	1 59	1 51	1 44	1 38	1 32	1 25		10	
	20	5 28	5 08	4 49	4 31	4 14	3 58	3 43	3 29	3 16	3 02	2 50		20	
	30	8 08	7 38	7 11	6 44	6 19	5 55	5 32	5 12	4 52	4 32	4 14		30	
	40	10 44	10 05	9 28	8 54	8 22	7 50	7 21	6 52	6 26	6 01	5 36		40	
	50	13 14	12 26	11 42	11 00	10 20	9 42	9 06	8 31	7 59	7 27	6 57		50	
1	00	15 36	14 42	13 49	13 01	12 14	11 30	10 47	10 08	9 29	8 52	8 17	1	00	
	10	17 52	16 50	15 52	14 57	14 04	13 13	12 25	11 40	10 56	10 14	9 34		10	
	20	19 58	18 52	17 48	16 46	15 49	14 53	14 00	13 09	12 20	11 33	10 48		20	
	30	21 57	20 45	19 37	18 31	17 28	16 27	15 30	14 35	13 40	12 49	12 00		30	
	40	23 46	22 31	21 18	20 08	19 01	17 56	16 55	15 53	14 58	14 02	13 08		40	
	50	25 27	24 09	22 53	21 39	20 29	19 20	18 15	17 12	16 10	15 11	14 13		50	
2	00	27 01	25 39	24 20	23 04	21 50	20 39	19 30	18 24	17 19	16 16	15 16	2	00	
	10	28 25	27 02	25 40	24 22	23 06	21 51	20 40	19 30	18 23	17 18	16 15		10	
	20	29 41	28 16	26 53	25 33	24 18	22 59	21 45	20 33	19 23	18 15	17 09		20	
	30	30 49	29 23	27 59	26 38	25 18	24 00	22 45	21 31	20 19	19 10	18 01		30	
	40	31 49	30 23	28 59	27 37	26 16	24 57	23 40	22 25	21 11	19 59	18 49		40	
	50	32 43	31 18	29 53	28 29	27 08	25 48	24 31	23 14	21 59	20 45	19 33		50	
3	00	33 31	32 05	30 41	29 17	27 55	26 35	25 16	23 59	22 42	21 27	20 14	3	00	
	10	34 12	32 47	31 22	29 59	28 37	27 16	25 57	24 38	23 21	22 05	20 51		10	
	20	34 47	33 22	31 59	30 36	29 13	27 52	26 32	25 14	23 57	22 40	21 24		20	
	30	35 17	33 53	32 30	31 07	29 46	28 24	27 04	25 45	24 28	23 11	21 54		30	
	40	35 41	34 19	32 55	31 33	30 12	28 52	27 32	26 14	24 56	23 38	22 21		40	
	50	36 01	34 39	33 17	31 56	30 35	29 15	27 56	26 37	25 19	24 01	22 45		50	
4	00	36 16	34 55	33 34	32 14	30 54	29 34	28 15	26 57	25 39	24 22	23 05	4	00	
	10	36 26	35 07	33 47	32 27	31 09	29 49	28 31	27 13	25 56	24 38	23 22		10	
	20	36 33	35 14	33 56	32 37	31 19	30 01	28 44	27 27	26 10	24 53	23 36		20	
	30	36 35	35 18	34 01	32 43	31 26	30 09	28 53	27 36	26 19	25 03	23 47		30	
	40	36 34	35 19	34 02	32 46	31 31	30 14	28 58	27 43	26 26	25 10	23 55		40	
	50	36 30	35 15	34 00	32 45	31 30	30 15	29 00	27 45	26 30	25 15	24 01		50	
5	00	36 21	35 08	33 55	32 41	31 28	30 14	29 00	27 46	26 32	25 18	24 04	5	00	
	10	36 11	34 59	33 47	32 34	31 21	30 09	28 56	27 44	26 30	25 17	24 04		10	
	20	35 56	34 46	33 35	32 24	31 13	30 01	28 50	27 38	26 26	25 14	24 01		20	
	30	35 39	34 31	33 22	32 11	31 01	29 51	28 41	27 30	26 18	25 07	23 57		30	
	40	35 19	34 12	33 04	31 56	30 47	29 38	28 28	27 19	26 10	24 59	23 49		40	
	50	34 57	33 52	32 45	31 38	30 30	29 22	28 15	27 06	25 58	24 49	23 40		50	
6	00	34 32	33 28	32 23	31 16	30 10	29 05	27 58	26 51	25 43	24 36	23 27	6	00	
	10	34 05	33 02	31 58	30 53	29 49	28 44	27 38	26 33	25 27	24 21	23 13		10	
	20	33 35	32 33	31 30	30 28	29 25	28 22	27 18	26 13	25 09	24 03	22 57		20	
	30	33 03	32 02	31 00	30 00	28 58	27 56	26 54	25 50	24 47	23 43	22 40		30	
	40	32 28	31 29	30 30	29 30	28 29	27 29	26 28	25 27	24 25	23 23	22 21		40	
	50	31 51	30 54	29 56	28 57	27 59	27 00	26 01	25 00	23 59	22 58	21 58		50	
7	00	31 13	30 17	29 21	28 23	27 26	26 28	25 30	24 32	23 33	22 33	21 33	7	00	
	10	30 32	29 38	28 43	27 47	26 52	25 55	24 58	24 02	23 04	22 06	21 07		10	
	20	29 50	28 56	28 03	27 09	26 15	25 19	24 25	23 29	22 33	21 37	20 40		20	
	30	29 05	28 13	27 21	26 28	25 36	24 43	23 50	22 56	22 01	21 06	20 11		30	
	40	28 18	27 28	26 38	25 46	24 55	24 04	23 13	22 20	21 27	20 33	19 40		40	
	50	27 29	26 41	25 52	25 03	24 14	23 24	22 33	21 43	20 52	20 00	19 09		50	
8	00	26 39	25 53	25 05	24 18	23 30	22 41	21 53	21 04	20 14	19 24	18 35	8	00	
	10	25 48	25 02	24 16	23 30	22 44	21 58	21 11	20 23	19 36	18 48	17 59		10	
	20	24 53	24 10	23 26	22 42	21 58	21 13	20 27	19 42	18 56	18 10	17 23		20	
	30	23 58	23 17	22 35	21 51	21 09	20 26	19 43	18 59	18 15	17 30	16 45		30	
	40	23 01	22 21	21 41	21 00	20 19	19 37	18 55	18 14	17 31	16 49	16 06		40	
	50	22 03	21 25	20 45	20 06	19 27	18 48	18 07	17 28	16 47	16 06	15 25		50	
9	00	21 02	20 25	19 48	19 12	18 34	17 57	17 19	16 40	16 02	15 23	14 44	9	00	
	10	20 01	19 26	18 51	18 16	17 40	17 04	16 28	15 52	15 15	14 38	14 01		10	
	20	18 58	18 26	17 52	17 18	16 45	16 10	15 36	15 02	14 27	13 53	13 17		20	
	30	17 54	17 23	16 52	16 19	15 47	15 16	14 43	14 11	13 39	13 06	12 33		30	
	40	16 48	16 19	15 49	15 20	14 50	14 20	13 50	13 19	12 48	12 18	11 47		40	
	50	15 41	15 15	14 47	14 19	13 51	13 23	12 55	12 27	11 58	11 29	11 00		50	
10	00	14 33	14 08	13 43	13 17	12 51	12 26	11 59	11 33	11 07	10 39	10 13	10	00	
	10	13 24	13 01	12 38	12 14	11 50	11 26	11 03	10 38	10 14	9 49	9 24		10	
	20	12 15	11 54	11 32	11 10	10 48	10 27	10 05	9 43	9 20	8 58	8 35		20	
	30	11 04	10 45	10 25	10 06	9 46	9 26	9 07	8 47	8 27	8 06	7 46		30	
	40	9 53	9 35	9 18	9 00	8 43	8 25	8 07	7 50	7 32	7 14	6 56		40	
	50	8 42	8 25	8 10	7 55	7 39	7 23	7 08	6 53	6 36	6 21	6 05		50	
11	00	7 27	7 14	7 00	6 47	6 35	6 21	6 07	5 54	5 40	5 27	5 14	11	00	
	10	6 13	6 03	5 52	5 40	5 29	5 18	5 07	4 56	4 45	4 33	4 22		10	
	20	4 59	4 50	4 42	4 33	4 24	4 15	4 07	3 57	3 48	3 39	3 30		20	
	30	3 45	3 38	3 32	3 25	3 18	3 11	3 04	2 59	2 52	2 45	2 37		30	
	40	2 30	2 26	2 21	2 17	2 12	2 08	2 03	1 59	1 54	1 49	1 45		40	
	50	1 16	1 13	1 11	1 08	1 06	1 04	1 02	1 00	0 58	0 55	0 53		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 34°.				DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 34°.			
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.					
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.				
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	.....	0 00	0	00			
0	10	167 02	165 46	164 13	162 15	159 41	156 15	151 24	144 13	132 49	114 56	89 18	63 25	1	10				
0	20	155 07	152 55	150 18	147 06	143 09	138 13	131 58	124 04	114 07	102 06	88 36	74 57	2	20				
0	30	144 50	142 08	138 59	135 19	131 02	126 00	120 08	113 19	105 34	97 00	87 54	78 41	3	30				
0	40	136 17	133 23	130 07	126 27	122 19	117 42	112 32	106 50	100 39	94 03	87 12	80 16	4	40				
0	50	129 15	126 23	123 11	119 43	115 54	111 45	107 17	102 27	97 21	91 59	86 30	80 56	5	50				
1	00	123 28	120 41	117 41	114 28	111 00	107 18	103 22	99 13	94 53	90 24	85 47	81 08	1	00				
1	10	118 38	116 00	113 13	110 14	107 06	103 47	100 18	96 40	92 54	89 02	85 05	81 05	2	10				
1	20	114 34	112 06	109 30	106 47	103 54	100 55	97 48	94 34	91 15	87 50	84 22	80 52	3	20				
1	30	111 05	108 46	106 21	103 49	101 13	98 29	95 40	92 46	89 47	86 45	83 39	80 31	4	30				
1	40	108 02	105 52	103 37	101 18	98 53	96 23	93 49	91 10	88 29	85 43	82 56	80 07	5	40				
1	50	105 23	103 20	101 13	99 03	96 49	94 31	92 09	89 45	87 17	84 46	82 13	79 38	6	50				
2	00	102 58	101 03	99 05	97 03	94 58	92 49	90 39	88 24	86 08	83 49	81 29	79 06	2	00				
2	10	100 49	99 00	97 08	95 14	93 17	91 17	89 15	87 11	85 04	82 55	80 45	78 33	3	10				
2	20	98 49	97 06	95 21	93 33	91 44	89 51	87 57	86 00	84 02	82 02	80 00	77 58	4	20				
2	30	96 59	95 21	93 42	91 59	90 16	88 30	86 43	84 53	83 01	81 09	79 15	77 20	5	30				

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 34°.				DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 34°.			
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.					
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.				
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00				
	10	44 58	33 26	26 06	21 09	17 39	15 04	13 05	11 30	10 14	9 10	8 17	7 31		10				
	20	62 33	52 11	43 53	37 20	32 10	28 02	24 42	21 58	19 41	17 46	16 08	14 43		20				
	30	69 50	61 41	54 27	48 09	42 44	38 08	34 12	30 49	27 56	25 25	23 14	21 18		30				
	40	73 27	66 54	60 49	55 13	50 09	45 37	41 35	37 59	34 48	31 58	29 26	27 10		40				
	50	75 23	70 00	64 49	59 55	55 19	51 06	47 11	43 37	40 21	37 24	34 42	32 14		50				
1	00	76 29	71 55	67 26	63 07	59 00	55 07	51 26	48 01	44 49	41 51	39 07	36 34	1	00				
	10	77 04	73 05	69 11	65 21	61 38	58 04	54 40	51 26	48 22	45 29	42 46	40 12		10				
	20	77 20	73 49	70 20	66 54	63 33	60 17	57 07	54 06	51 11	48 24	45 46	43 15		20				
	30	77 22	74 13	71 06	68 00	64 56	61 56	59 00	56 10	53 25	50 46	48 13	45 47		30				
	40	77 16	74 25	71 33	68 44	65 55	63 10	60 26	57 47	55 12	52 40	50 15	47 52		40				
	50	77 02	74 26	71 49	69 13	66 37	64 04	61 32	59 03	56 36	54 12	51 52	49 36		50				
2	00	76 43	74 19	71 54	69 29	67 05	64 42	62 20	59 59	57 40	55 25	53 11	51 00	2	00				
	10	76 19	74 05	71 51	69 36	67 22	65 08	62 54	60 42	58 31	56 22	54 15	52 09		10				
	20	75 53	73 48	71 43	69 36	67 29	65 24	63 18	61 14	59 09	57 07	55 05	53 04		20				
	30	75 24	73 26	71 29	69 29	67 30	65 32	63 33	61 35	59 37	57 40	55 43	53 48		30				

AZIMUTH OR TRUE BEARING.

LATITUDE 34°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 34°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h. m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h. m.	o /
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
10	6 52	6 18	5 48	5 22	4 58	4 37	4 17	4 00	3 43	3 28	3 15	3 02	2 50	10	3 02
20	13 29	12 24	11 26	10 34	9 48	9 07	8 29	8 55	7 23	6 55	6 28	6 03	5 50	20	6 03
30	19 46	18 07	16 45	15 32	14 27	13 27	12 32	11 43	10 57	10 14	9 35	8 59	8 30	30	9 35
40	25 08	23 19	21 40	20 10	18 48	17 32	16 24	15 20	14 22	13 27	12 37	11 50	11 50	40	12 37
50	30 01	27 58	26 05	24 22	22 47	21 20	19 59	18 44	17 35	16 31	15 30	14 33	14 33	50	15 30
1 00	34 13	32 02	30 01	28 09	26 25	24 48	23 19	21 54	20 35	19 22	18 13	17 08	17 08	1 00	17 08
10	37 50	35 35	33 29	31 31	29 40	27 57	26 19	24 48	23 22	22 01	20 45	19 34	19 34	10	20 45
20	40 52	38 37	36 28	34 28	32 33	30 46	29 04	27 27	25 56	24 29	23 07	21 49	21 49	20	23 07
30	43 27	41 13	39 05	37 03	35 06	33 16	31 31	29 50	28 15	26 44	25 18	23 55	23 55	30	25 18
40	45 36	43 24	41 18	39 16	37 20	35 28	33 41	31 58	30 20	28 46	27 16	25 50	25 50	40	27 16
50	47 24	45 16	43 11	41 11	39 15	37 24	35 35	33 52	32 12	30 36	29 04	27 35	27 35	50	29 04
2 00	48 53	46 49	44 47	42 50	40 55	39 04	37 17	35 33	33 52	32 16	30 41	29 10	29 10	2 00	30 41
10	50 07	48 07	46 09	44 13	42 21	40 32	38 45	37 02	35 20	33 43	32 08	30 37	30 37	10	32 08
20	51 07	49 10	47 16	45 24	43 34	41 46	40 02	38 19	36 38	35 02	33 26	31 54	31 54	20	33 26
30	51 55	50 03	48 12	46 23	44 35	42 50	41 07	39 26	37 46	36 09	34 35	33 03	33 03	30	34 35
40	52 33	50 45	48 57	47 11	45 27	43 45	42 03	40 23	38 45	37 10	35 35	34 03	34 03	40	35 35
50	53 02	51 18	49 34	47 51	46 09	44 29	42 50	41 12	39 36	38 01	36 27	34 56	34 56	50	36 27
3 00	53 24	51 43	50 02	48 22	46 43	45 06	43 29	41 53	40 18	38 44	37 12	35 42	35 42	3 00	37 12
10	53 38	52 01	50 24	48 46	47 11	45 36	44 00	42 27	40 54	39 22	37 51	36 21	36 21	10	37 51
20	53 46	52 12	50 38	49 04	47 31	45 58	44 26	42 54	41 23	39 52	38 22	36 54	36 54	20	38 22
30	53 49	52 17	50 46	49 16	47 45	46 14	44 44	43 15	41 45	40 17	38 49	37 22	37 22	30	38 49
40	53 47	52 19	50 50	49 21	47 54	46 26	44 57	43 29	42 02	40 36	39 09	37 43	37 43	40	39 09
50	53 40	52 15	50 49	49 23	47 57	46 32	45 06	43 40	42 15	40 50	39 24	38 00	38 00	50	39 24
4 00	53 29	52 06	50 44	49 20	47 56	46 32	45 10	43 46	42 22	40 59	39 36	38 13	38 13	4 00	39 36
10	53 15	51 54	50 33	49 12	47 51	46 30	45 09	43 46	42 25	41 03	39 42	38 21	38 21	10	39 42
20	52 57	51 38	50 20	49 01	47 41	46 23	45 03	43 43	42 24	41 03	39 44	38 24	38 24	20	39 44
30	52 35	51 19	50 03	48 46	47 29	46 12	44 54	43 36	42 19	41 00	39 42	38 24	38 24	30	39 42
40	52 11	50 56	49 42	48 27	47 13	45 57	44 42	43 26	42 09	40 53	39 36	38 20	38 20	40	39 36
50	51 44	50 32	49 19	48 06	46 53	45 40	44 26	43 11	41 56	40 43	39 28	38 12	38 12	50	39 28
5 00	51 14	50 03	48 53	47 41	46 30	45 19	44 07	42 54	41 42	40 28	39 16	38 02	38 02	5 00	39 16
10	50 40	49 32	48 24	47 14	46 05	44 55	43 45	42 33	41 23	40 12	39 00	37 47	37 47	10	39 00
20	50 05	48 59	47 52	46 45	45 37	44 29	43 20	42 11	41 01	39 51	38 41	37 32	37 32	20	39 51
30	49 28	48 23	47 18	46 11	45 05	43 59	42 53	41 44	40 37	39 29	38 20	37 12	37 12	30	39 29
40	48 48	47 45	46 41	45 37	44 32	43 27	42 22	41 16	40 10	39 03	37 56	36 49	36 49	40	39 03
50	48 06	47 05	46 03	45 00	43 56	42 53	41 49	40 45	39 40	38 35	37 29	36 24	36 24	50	38 35
6 00	47 22	46 22	45 21	44 20	43 18	42 16	41 14	40 11	39 08	38 04	37 00	35 56	35 56	6 00	37 00
10	46 36	45 37	44 37	43 37	42 38	41 37	40 36	39 34	38 33	37 31	36 29	35 26	35 26	10	36 29
20	45 47	44 50	43 52	42 53	41 55	40 56	39 57	38 57	37 57	36 56	35 55	34 54	34 54	20	36 56
30	44 56	44 00	43 03	42 07	41 10	40 12	39 14	38 16	37 17	36 19	35 19	34 19	34 19	30	36 19
40	44 04	43 09	42 14	41 18	40 23	39 27	38 30	37 33	36 36	35 39	34 40	33 41	33 41	40	35 39
50	43 09	42 15	41 22	40 28	39 33	38 38	37 43	36 48	35 52	34 56	34 00	33 03	33 03	50	35 52
7 00	42 12	41 20	40 27	39 34	38 42	37 49	36 55	36 01	35 07	34 12	33 17	32 21	32 21	7 00	35 07
10	41 13	40 22	39 31	38 39	37 48	36 57	36 04	35 11	34 19	33 26	32 31	31 38	31 38	10	34 19
20	40 12	39 23	38 33	37 43	36 53	36 03	35 11	34 20	33 29	32 38	31 45	30 53	30 53	20	33 29
30	39 10	38 22	37 33	36 44	35 55	35 06	34 17	33 28	32 38	31 47	30 56	30 06	30 06	30	33 28
40	38 05	37 18	36 31	35 43	34 56	34 08	33 20	32 32	31 44	30 56	30 06	29 17	29 17	40	32 32
50	36 58	36 13	35 27	34 41	33 55	33 09	32 23	31 36	30 49	30 01	29 14	28 26	28 26	50	31 36
8 00	35 48	35 04	34 21	33 36	32 52	32 07	31 22	30 37	29 51	29 05	28 20	27 34	27 34	8 00	30 37
10	34 38	33 55	33 13	32 29	31 46	31 03	30 20	29 36	28 53	28 09	27 23	26 39	26 39	10	29 51
20	33 26	32 44	32 03	31 21	30 40	29 58	29 16	28 33	27 51	27 10	26 26	25 43	25 43	20	28 53
30	32 11	31 31	30 51	30 11	29 31	28 51	28 11	27 30	26 49	26 08	25 27	24 45	24 45	30	27 51
40	30 55	30 15	29 38	28 59	28 20	27 42	27 03	26 24	25 45	25 06	24 26	23 47	23 47	40	26 49
50	29 36	28 59	28 22	27 44	27 07	26 31	25 54	25 16	24 39	24 01	23 23	22 45	22 45	50	25 45
9 00	28 15	27 39	27 05	26 29	25 53	25 18	24 42	24 06	23 31	22 56	22 19	21 43	21 43	9 00	24 39
10	26 52	26 19	25 45	25 12	24 38	24 05	23 30	22 57	22 23	21 48	21 14	20 40	20 40	10	23 31
20	25 29	24 58	24 25	23 53	23 21	22 49	22 17	21 44	21 11	20 39	20 07	19 34	19 34	20	22 23
30	24 03	23 33	23 03	22 31	22 02	21 31	21 01	20 31	20 00	19 29	18 58	18 27	18 27	30	21 44
40	22 35	22 06	21 38	21 09	20 41	20 13	19 44	19 16	18 46	18 18	17 49	17 20	17 20	40	20 39
50	21 06	20 40	20 13	19 46	19 19	18 52	18 26	17 58	17 32	17 06	16 38	16 11	16 11	50	19 29
10 00	19 35	19 11	18 46	18 20	17 56	17 31	17 06	16 41	16 16	15 51	15 26	15 01	15 01	10 00	18 58
10	18 03	17 40	17 17	16 53	16 31	16 08	15 45	15 22	14 59	14 36	14 13	13 50	13 50	10	17 58
20	16 30	16 08	15 47	15 26	15 05	14 44	14 23	14 02	13 41	13 20	12 59	12 38	12 38	20	16 57
30	14 55	14 36	14 16	13 57	13 38	13 20	13 00	12 41	12 22	12 03	11 44	11 24	11 24	30	15 59
40	13 18	13 01	12 45	12 28	12 10	11 53	11 36	11 19	11 02	10 45	10 28	10 11	10 11	40	14 59
50	11 42	11 26	11 11	10 56	10 41	10 26	10 11	9 56	9 41	9 27	9 11	8 56	8 56	50	13 50
11 00	10 03	9 50	9 37	9 24	9 11	8 58	8 45	8 32	8 19	8 06	7 54	7 41	7 41	11 00	12 41
10	8 24	8 12	8 01	7 51	7 40	7 29	7 19	7 08	6 57	6 46	6 35	6 25	6 25	10	11 31
20	6 43	6 36	6 27	6 18	6 09	6 01	5 51	5 43	5 35	5 25	5 17	5 08	5 08	20	10 21
30	5 04	4 57	4 50	4 44	4 37	4 31	4 25	4 17	4 11	4 05	3 59	3 51	3 51	30	9 11
40	3 23	3 18	3 14	3 09	3 05	3 01	2 57	2 52	2 47	2 43	2 39	2 35	2 35	40	8 01
50	1 41	1 39	1 37	1 35	1 33	1 30	1 28	1 26	1 24	1 22	1 20	1 17	1 17	50	6 51
12 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12 00	5 41

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 34°.			DECLINATION—SAME NAME AS—LATITUDE.											-LATITUDE 34°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.			
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	2 51	2 40	2 30	2 20	2 11	2 03	1 55	1 48	1 40	1 33	1 27		10		
	20	5 39	5 18	4 58	4 40	4 22	4 05	3 49	3 34	3 20	3 07	2 54		20		
	30	8 25	7 53	7 24	6 56	6 30	6 05	5 42	5 20	4 59	4 39	4 20		30		
	40	11 06	10 25	9 46	9 10	8 35	8 03	7 33	7 04	6 36	6 10	5 43		40		
	50	13 40	12 50	12 03	11 19	10 38	9 58	9 20	8 45	8 11	7 38	7 07		50		
1	00	16 06	15 09	14 15	13 24	12 35	11 48	11 05	10 23	9 43	9 05	8 29	1	00		
	10	18 26	17 22	16 21	15 22	14 27	13 34	12 45	11 57	11 12	10 28	9 47		10		
	20	20 36	19 25	18 19	17 15	16 14	15 17	14 21	13 28	12 38	11 49	11 02		20		
	30	22 36	21 21	20 09	19 01	17 55	16 53	15 52	14 55	14 00	13 07	12 16		30		
	40	24 28	23 08	21 53	20 40	19 30	18 24	17 20	16 18	15 18	14 20	13 25		40		
	50	26 10	24 47	23 28	22 13	20 59	19 48	18 41	17 35	16 32	15 31	14 31		50		
2	00	27 44	26 19	24 57	23 38	22 21	21 08	19 57	18 48	17 42	16 37	15 35	2	00		
	10	29 08	27 41	26 17	24 56	23 37	22 22	21 08	19 56	18 46	17 39	16 33		10		
	20	30 23	28 56	27 30	26 08	24 48	23 29	22 14	21 00	19 48	18 38	17 30		20		
	30	31 31	30 04	28 37	27 13	25 52	24 31	23 14	21 58	20 45	19 32	18 21		30		
	40	32 32	31 03	29 36	28 12	26 49	25 28	24 09	22 51	21 36	20 22	19 10		40		
	50	33 26	31 57	30 30	29 04	27 41	26 20	24 59	23 40	22 24	21 08	19 55		50		
3	00	34 12	32 44	31 17	29 52	28 28	27 05	25 45	24 25	23 07</						

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 35°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 35°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
	10	168 11	167 08	165 53	164 20	162 24	159 52	156 28	151 39	144 31	133 16	115 11	89 17		10
	20	157 08	155 18	153 07	150 30	147 18	143 23	138 29	132 15	124 20	114 21	102 13	88 34		20
	30	147 24	145 03	142 20	139 16	135 34	131 17	126 16	120 22	113 32	105 42	97 03	87 51		30
	40	139 03	136 29	133 35	130 20	126 41	122 32	117 53	112 42	106 58	100 44	94 04	87 08		40
	50	132 03	129 26	126 33	123 23	119 53	116 04	111 55	107 23	102 32	97 23	91 58	86 24		50
1	00	126 11	123 37	120 50	117 50	114 35	111 07	107 24	103 26	99 16	94 52	90 20	85 41	1	00
	10	121 14	118 46	116 07	113 19	110 21	107 11	103 50	100 20	96 41	92 52	88 57	84 57		10
	20	117 00	114 40	112 11	109 34	106 50	103 56	100 56	97 48	94 32	91 11	87 44	84 13		20
	30	113 21	111 08	108 49	106 23	103 51	101 12	98 28	95 38	92 42	89 41	86 37	83 29		30
	40	110 09	108 04	105 54	103 37	101 17	98 50	96 20	93 45	91 05	88 21	85 35	82 45		40
	50	107 20	105 22	103 19	101 12	99 01	96 45	94 26	92 03	89 37	87 07	84 36	82 01		50
2	00	104 47	102 55	101 00	99 01	96 59	94 52	92 44	90 31	88 16	85 58	83 38	81 16	2	00
	10	102 30	100 44	98 55	97 03	95 07	93 09	91 09	89 05	87 00	84 52	82 43	80 31		10
	20	100 23	98 42	97 00	95 13	93 26	91 35	89 42	87 46	85 49	83 49	81 48	79 45		20
	30	98 26	96 51	95 13	93 32	91 50	90 05	88 19	86 30	84 40	82 45	80 54	78 59		30
	40	96 38	95 06	93 33	91 57	90 21	88 41	87 00	85 18	83 34	81 48	80 01	78 12		40
	50	94 56	93 28	91 59	90 28	88 56	87 21	85 46	84 08	82 30	80 50	79 09	77 26		50
3	00	93 18	91 54	90 30	89 03	87 34	86 04	84 34	83 01	81 27	79 52	78 16	76 38	3	00
	10	91 46	90 26	89 04	87 41	86 16	84 50	83 23	81 55	80 26	78 54	77 23	75 50		10
	20	90 18	89 01	87 42	86 22	85 01	83 38	82 15	80 51	79 25	77 58	76 30	75 01		20
	30	88 52	87 38	86 22	85 05	83 47	82 28	81 08	79 46	78 25	77 02	75 38	74 12		30
	40	87 30	86 18	85 04	83 50	82 35	81 19	80 01	78 44	77 25	76 05	74 44	73 22		40
	50	86 10	85 00	83 49	82 37	81 25	80 11	78 57	77 41	76 25	75 08	73 50	72 32		50
4	00	84 52	83 43	82 35	81 25	80 15	79 04	77 52	76 39	75 26	74 11	72 57	71 41	4	00
	10	83 34	82 28	81 22	80 14	79 07	77 57	76 47	75 37	74 27	73 15	72 02	70 48		10
	20	82 18	81 15	80 10	79 05	77 58	76 51	75 43	74 35	73 26	72 17	71 06	69 50		20
	30	81 05	80 01	78 59	77 55	76 50	75 46	74 40	73 33	72 26	71 18	70 10	69 02		30
	40	79 50	78 49	77 48	76 46	75 42	74 39	73 35	72 31	71 26	70 20	69 14	68 07		40
	50	78 37	77 37	76 37	75 36	74 35	73 33	72 31	71 28	70 25	69 21	68 17	67 11		50
5	00	77 23	76 24	75 26	74 26	73 27	72 27	71 26	70 24	69 23	68 20	67 18	66 15	5	00
	10	76 10	75 12	74 14	73 16	72 19	71 20	70 20	69 20	68 20	67 19	66 18	65 17		10
	20	74 57	74 00	73 04	72 07	71 10	70 12	69 15	68 16	67 17	66 17	65 18	64 18		20
	30	73 43	72 47	71 52	70 56	70 00	69 05	68 08	67 10	66 13	65 15	64 17	63 18		30
	40	72 28	71 34	70 39	69 45	68 50	67 55	67 00	66 04	65 08	64 11	63 14	62 16		40
	50	71 14	70 20	69 27	68 34	67 40	66 46	65 52	64 57	64 02	63 06	62 10	61 14		50
6	00	69 58	69 06	68 13	67 21	66 28	65 35	64 42	63 48	62 54	61 59	61 04	60 10	6	00
	10	68 41	67 50	66 59	66 07	65 15	64 23	63 30	62 38	61 45	60 51	59 58	59 04		10
	20	67 24	66 33	65 43	64 52	64 01	63 10	62 19	61 27	60 35	59 42	58 50	57 57		20
	30	66 06	65 16	64 26	63 36	62 46	61 55	61 05	60 14	59 23	58 31	57 41	56 49		30
	40	64 46	63 57	63 07	62 18	61 28	60 39	59 50	58 59	58 10	57 20	56 30	55 39		40
	50	63 24	62 36	61 48	60 59	60 10	59 22	58 34	57 44	56 56	56 06	55 16	54 27		50
7	00	62 02	61 14	60 26	59 38	58 51	58 03	57 15	56 27	55 39	54 51	54 02	53 13	7	00
	10	60 37	59 49	59 02	58 16	57 28	56 41	55 54	55 07	54 20	53 33	52 46	51 58		10
	20	59 11	58 24	57 38	56 52	56 05	55 19	54 32	53 46	53 01	52 12	51 27	50 40		20
	30	57 42	56 56	56 11	55 25	54 39	53 55	53 09	52 24	51 38	50 52	50 07	49 21		30
	40	56 11	55 26	54 41	53 57	53 12	52 28	51 43	50 58	50 14	49 29	48 45	47 59		40
	50	54 38	53 54	53 10	52 27	51 42	50 59	50 15	49 31	48 47	48 04	47 21	46 37		50
8	00	53 03	52 20	51 37	50 53	50 10	49 28	48 45	48 02	47 19	46 36	45 54	45 11	8	00
	10	51 25	50 42	50 01	49 18	48 36	47 53	47 11	46 29	45 48	45 07	44 25	43 44		10
	20	49 45	49 03	48 21	47 40	46 59	46 17	45 37	44 55	44 15	43 35	42 54	42 14		20
	30	48 02	47 19	46 39	45 59	45 19	44 39	43 59	43 20	42 39	42 00	41 21	40 41		30
	40	46 16	45 34	44 55	44 15	43 37	42 58	42 19	41 40	41 01	40 23	39 45	39 07		40
	50	44 25	43 46	43 08	42 29	41 51	41 13	40 36	39 58	39 21	38 43	38 07	37 30		50
9	00	42 33	41 55	41 18	40 40	40 03	39 26	38 50	38 13	37 38	37 01	36 26	35 50	9	00
	10	40 37	40 01	39 24	38 48	38 12	37 37	37 01	36 27	35 52	35 16	34 42	34 08		10
	20	38 38	38 03	37 28	36 52	36 19	35 44	35 11	34 36	34 03	33 30	32 57	32 24		20
	30	36 36	36 01	35 28	34 55	34 21	33 48	33 16	32 44	32 12	31 40	31 09	30 37		30
	40	34 30	33 57	33 25	32 53	32 22	31 50	31 19	30 48	30 18	29 47	29 18	28 48		40
	50	32 21	31 50	31 20	30 49	30 19	29 49	29 19	28 50	28 21	27 52	27 25	26 56		50
10	00	30 08	29 39	29 10	28 41	28 12	27 45	27 18	26 49	26 22	25 55	25 29	25 02	10	00
	10	27 52	27 24	26 55	26 29	26 03	25 37	25 12	24 46	24 20	23 56	23 31	23 06		10
	20	25 33	25 06	24 41	24 16	23 52	23 28	23 03	22 40	22 17	21 53	21 31	21 08		20
	30	23 10	22 46	22 23	22 00	21 37	21 15	20 53	20 31	20 10	19 49	19 28	19 08		30
	40	20 44	20 22	20 01	19 40	19 20	19 00	18 40	18 21	18 02	17 43	17 24	17 05		40
	50	18 15	17 56	17 37	17 19	17 01	16 43	16 25	16 08	15 52	15 34	15 18	15 01		50
11	00	15 44	15 28	15 11	14 55	14 39	14 24	14 08	13 54	13 39	13 25	13 10	12 56	11	00
	10	13 10	12 56	12 42	12 30	12 16	12 03	11 50	11 38	11 25	11 13	11 01	10 49		10
	20	10 35	10 23	10 12	10 02	9 51	9 41	9 30	9 20	9 10	9 00	8 50	8 40		20
	30	7 58	7 49	7 41	7 32	7 24	7 16	7 09	7 00	6 53	6 46	6 38	6 31		30
	40	5 20	5 13	5 08	5 02	4 57	4 51	4 46	4 41	4 36	4 31	4 26	4 21		40
	50	2 40	2 37	2 34	2 31	2 28	2 26	2 23	2 21	2 18	2 16	2 13	2 11		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 35°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 35°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.
		0	0	0	0	0	0	0	0	0	0	0	0		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	63 07	44 36	33 05	25 47	20 53	17 25	14 51	12 53	11 19	10 04	9 00	8 07		10
	20	74 45	62 14	51 48	43 28	36 56	31 46	27 40	24 21	21 38	19 23	17 24	15 51		20
	30	78 32	69 35	61 21	54 02	47 43	42 18	37 52	33 46	30 24	27 32	25 01	22 51		30
	40	80 07	73 12	66 36	60 27	54 48	49 43	45 10	41 06	37 31	34 20	31 30	28 59		40
	50	80 47	75 10	69 42	64 29	59 32	54 54	50 38	46 43	43 08	39 52	36 54	34 12		50
1	00	80 59	76 16	71 37	67 06	62 45	58 36	54 39	50 58	47 31	44 19	41 19	38 35	1	00
	10	80 55	76 51	72 49	68 51	65 00	61 15	57 38	54 12	50 56	47 52	44 57	42 13		10
	20	80 40	77 06	73 33	70 01	66 33	63 10	59 52	56 40	53 37	50 40	47 52	45 13		20
	30	80 20	77 09	73 57	70 47	67 39	64 33	61 31	58 34	55 42	52 55	50 14	47 40		30
	40	79 54	77 01	74 08	71 15	68 22	65 32	62 45	60 00	57 19	54 41	52 09	49 42		40
	50	79 25	76 47	74 08	71 29	68 51	66 14	63 38	61 04	58 34	56 06	53 40	51 19		50
2	00	78 52	76 27	74 00	71 34	69 08	66 42	64 17	61 53	59 31	57 11	54 53	52 39	2	00
	10	78 18	76 03	73 48	71 31	69 15	66 59	64 43	62 28	60 14	58 02	55 51	53 42		10
	20	77 40	75 35	73 29	71 21	69 14	67 06	64 59	62 51	60 46	58 40	56 36	54 32		20
	30	77 03	75 05	73 06	71 07	69 07	67 07	65 06	63 06	61 07	59 07	57 09	55 11		30
	40	76 23	74 31	72 40	70 47	68 55	67 01	65 07	63 13	61 20	59 26	57 32	55 40		40
	50	75 41	73 56	72 11	70 24	68 37	66 49	65 01	63 13	61 25	59 37	57 48	56 01		50
3	00	74 59	73 20	71 39	69 59	68 16	66 34	64 51	63 07	61 24	59 40	57 57	56 14	3	00
	10	74 16	72 42	71 06	69 29	67 52	66 14	64 36	62 57	61 18	59 39	58 00	56 21		10
	20	73 32	72 01	70 30	68 58	67 25	65 52	64 17	62 42	61 08	59 32	57 57	56 22		20
	30	72 46	71 20	69 52	68 23	66 55	65 25	63 55	62 24	60 53	59 22	57 50	56 18		30
	40	72 00	70 37	69 12	67 47	66 22	64 56	63 30	62 02	60 35	59 06	57 37	56 09		40
	50	71 13	69 52	68 31	67 10	65 48	64 25	63 01	61 36	60 12	58 47	57 22	55 56		50
4	00	70 24	69 07	67 49	66 30	65 11	63 51	62 30	61 09	59 48	58 25	57 03	55 40	4	00
	10	69 34	68 20	67 05	65 48	64 31	63 14	61 56	60 38	59 19	58 00	56 40	55 20		10
	20	68 44	67 32	66 18	65 05	63 51	62 36	61 21	60 05	58 49	57 31	56 14	54 56		20
	30	67 52	66 42	65 32	64 21	63 09	61 56	60 43	59 29	58 16	57 00	55 46	54 30		30
	40	66 59	65 54	64 43	63 34	62 25	61 14	60 04	58 52	57 40	56 27	55 15	54 01		40
	50	66 06	65 00	63 53	62 46	61 39	60 30	59 22	58 12	57 02	55 52	54 41	53 29		50
5	00	65 11	64 06	63 02	61 56	60 51	59 44	58 38	57 30	56 22	55 13	54 04	52 55	5	00
	10	64 15	63 12	62 09	61 05	60 01	58 57	57 52	56 46	55 40	54 33	53 26	52 19		10
	20	63 17	62 17	61 15	60 12	59 10	58 07	57 04	56 00	54 55	53 51	52 45	51 40		20
	30	62 19	61 19	60 19	59 18	58 18	57 16	56 15	55 12	54 09	53 07	52 03	50 59		30
	40	61 18	60 20	59 22	58 22	57 23	56 23	55 23	54 22	53 21	52 19	51 18	50 15		40
	50	60 17	59 21	58 23	57 25	56 28	55 29	54 30	53 31	52 31	51 31	50 31	49 30		50
6	00	59 15	58 19	57 23	56 26	55 30	54 33	53 35	52 37	51 40	50 45	49 48	48 42	6	00
	10	58 10	57 16	56 21	55 25	54 30	53 35	52 39	51 42	50 45	49 48	48 51	47 53		10
	20	57 04	56 11	55 17	54 23	53 30	52 35	51 41	50 45	49 50	48 54	47 58	47 01		20
	30	55 57	55 05	54 13	53 19	52 27	51 34	50 40	49 46	48 52	47 57	47 02	46 08		30
	40	54 48	53 57	53 06	52 14	51 23	50 31	49 38	48 46	47 52	46 59	46 06	45 12		40
	50	53 37	52 48	51 57	51 06	50 16	49 25	48 34	47 43	46 51	45 59	45 07	44 15		50
7	00	52 25	51 36	50 47	49 57	49 08	48 18	47 28	46 38	45 48	44 57	44 06	43 15	7	00
	10	51 10	50 22	49 34	48 46	47 58	47 09	46 21	45 31	44 42	43 53	43 03	42 13		10
	20	49 54	49 07	48 21	47 33	46 46	45 58	45 11	44 23	43 36	42 47	41 58	41 10		20
	30	48 35	47 49	47 04	46 18	45 32	44 45	44 00	43 13	42 27	41 39	40 52	40 05		30
	40	47 16	46 31	45 46	45 01	44 16	43 32	42 46	42 01	41 16	40 29	39 43	38 57		40
	50	45 54	45 10	44 26	43 42	42 58	42 14	41 30	40 46	40 02	39 17	38 34	37 49		50
8	00	44 29	43 46	43 03	42 20	41 38	40 55	40 12	39 29	38 46	38 04	37 21	36 38	8	00
	10	43 02	42 21	41 40	40 58	40 16	39 35	38 54	38 12	37 30	36 48	35 67	35 24		10
	20	41 33	40 53	40 13	39 33	38 53	38 12	37 31	36 51	36 11	35 31	34 51	34 10		20
	30	40 02	39 23	38 44	38 05	37 26	36 47	36 08	35 29	34 50	34 10	33 32	32 53		30
	40	38 29	37 50	37 13	36 35	35 58	35 19	34 42	34 04	33 27	32 49	32 11	31 34		40
	50	36 53	36 16	35 40	35 03	34 27	33 51	33 15	32 38	32 02	31 25	30 49	30 13		50
9	00	35 15	34 39	34 05	33 29	32 55	32 19	31 44	31 09	30 35	30 00	29 26	28 51	9	00
	10	33 34	33 00	32 26	31 52	31 20	30 46	30 13	29 39	29 06	28 32	28 00	27 26		10
	20	31 52	31 19	30 46	30 14	29 42	29 11	28 39	28 07	27 35	27 03	26 32	26 00		20
	30	30 05	29 35	29 04	28 33	28 03	27 32	27 03	26 32	26 02	25 32	25 02	24 32		30
	40	28 18	27 49	27 20	26 51	26 23	25 53	25 24	24 56	24 28	23 59	23 31	23 03		40
	50	26 28	26 00	25 33	25 06	24 39	24 12	23 45	23 18	22 51	22 24	21 58	21 31		50
10	00	24 36	24 10	23 45	23 19	22 54	22 29	22 03	21 38	21 13	20 48	20 24	19 59	10	00
	10	22 42	22 18	21 54	21 30	21 07	20 43	20 19	19 56	19 33	19 10	18 48	18 25		10
	20	20 46	20 24	20 01	19 40	19 18	18 56	18 35	18 14	17 52	17 31	17 10	16 49		20
	30	18 47	18 27	18 07	17 47	17 27	17 08	16 48	16 28	16 09	15 50	15 32	15 12		30
	40	16 46	16 29	16 10	15 53	15 35	15 18	15 00	14 43	14 25	14 08	13 51	13 34		40
	50	14 45	14 29	14 13	13 57	13 41	13 26	13 11	12 55	12 40	12 25	12 10	11 55		50
11	00	12 41	12 27	12 14	12 00	11 47	11 33	11 19	11 06	10 54	10 41	10 28	10 14	11	00
	10	10 37	10 25	10 14	10 02	9 50	9 39	9 29	9 17	9 06	8 55	8 44	8 34		10
	20	8 31	8 21	8 12	8 03	7 54	7 45	7 36	7 27	7 18	7 09	7 00	6 51		20
	30	6 24	6 17	6 10	6 03	5 56	5 49	5 42	5 36	5 29	5 22	5 16	5 09		30
	40	4 16	4 12	4 07	4 02	3 58	3 53	3 48	3 44	3 40	3 35	3 31	3 26		40
	50	2 08	2 06	2 03	2 01	1 59	1 57	1 54	1 52	1 50	1 48	1 46	1 44		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 35°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 35°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	7 23	6 44	6 11	5 40	5 15	5 51	4 30	4 11	3 54	3 38	3 22	3 10		10
	20	14 27	13 14	12 09	11 12	10 22	9 35	8 54	8 17	7 43	7 12	6 43	6 17		20
	30	20 57	19 15	17 46	16 25	15 13	14 09	13 09	12 15	11 26	10 40	9 58	9 20		30
	40	26 44	24 42	22 53	21 14	19 45	18 24	17 09	16 01	14 58	14 00	13 06	12 16		40
	50	31 45	29 31	27 28	25 36	23 54	22 20	20 53	19 32	18 18	17 09	16 05	15 05		50
1	00	36 02	33 41	31 30	29 29	27 38	25 55	24 17	22 48	21 24	20 05	18 52	17 44	1	00
	10	39 39	37 16	35 01	32 55	30 57	29 07	27 23	25 47	24 16	22 50	21 29	20 13		10
	20	42 42	40 18	38 02	35 54	33 52	31 58	30 09	28 28	26 52	25 21	23 54	22 32		20
	30	45 13	42 52	40 37	38 28	36 26	34 29	32 38	30 52	29 12	27 37	26 06	24 40		30
	40	47 18	45 01	42 48	40 40	38 39	36 42	34 45	33 02	31 20	29 41	28 07	26 37		40
	50	49 02	46 48	44 39	42 33	40 33	38 37	36 44	34 56	33 12	31 32	29 55	28 23		50
2	00	50 27	48 18	46 12	44 10	42 11	40 17	38 24	36 37	34 52	33 11	31 33	29 59	2	00
	10	51 35	49 31	47 29	45 30	43 35	41 42	39 51	38 04	36 20	34 38	33 00	31 25		10
	20	52 30	50 31	48 33	46 38	44 45	42 55	41 05	39 20	37 37	35 56	34 18	32 42		20
	30	53 15	51 20	49 26	47 34	45 44	43 56	42 09	40 25	38 43	37 03	35 26	33 50		30
	40	53 48	51 58	50 08	48 20	46 33	44 47	43 03	41 21	39 41	38 02	36 24	34 50		40
	50	54 14	52 27	50 41	48 55	47 12	45 29	43 48	42 08	40 29	38 51	37 15	35 41		50
3	00	54 30	52 48	51 05	49 24	47 43	46 03	44 24	42 46	41 10	39 34	37 59	36 27	3	00
	10	54 42	53 03	51 24	49 45	48 09	46 30	44 54	43 18	41 44	40 09	38 36	37 04		10
	20	54 46	53 11	51 35	50 00	48 25	46 50	45 16	43 43	42 11	40 38	39 06	37 37		20
	30	54 46	53 13	51 41	50 08	48 36	47 05	45 33	44 02	42 31	41 01	39 31	38 03		30
	40	54 40	53 11	51 41	50 12	48 43	47 13	45 44	44 15	42 47	41 18	39 49	38 23		40
	50	54 30	53 04	51 37	50 10	48 44	47 17	45 50	44 23	42 57	41 30	40 04	38 38		50
4	00	54 16	52 53	51 29	50 04	48 41	47 16	45 51	44 26	43 02	41 37	40 13	38 49	4	00
	10	53 59	52 38	51 16	49 54	48 32	47 10	45 48	44 25	43 04	41 40	40 17	38 56		10
	20	53 38	52 20	51 00	49 41	48 21	47 01	45 40	44 20	43 00	41 39	40 18	38 58		20
	30	53 14	51 58	50 41	49 23	48 07	46 49	45 30	44 11	42 53	41 33	40 15	38 56		30
	40	52 47	51 33	50 19	49 03	47 47	46 32	45 16	43 59	42 43	41 25	40 07	38 50		40
	50	52 17	51 06	49 52	48 40	47 26	46 12	44 58	43 43	42 29	41 13	39 57	38 41		50
5	00	51 45	50 35	49 25	48 13	47 02	45 50	44 37	43 24	42 11	40 57	39 43	38 29	5	00
	10	51 10	50 02	48 54	47 44	46 34	45 24	44 13	43 02	41 51	40 38	39 26	38 14		10
	20	50 33	49 26	48 19	47 12	46 04	44 55	43 46	42 37	41 28	40 17	39 06	37 56		20
	30	49 54	48 50	47 43	46 37	45 31	44 25	43 17	42 09	41 01	39 53	38 44	37 35		30
	40	49 12	48 09	47 05	46 01	44 56	43 51	42 45	41 39	40 33	39 26	38 19	37 11		40
	50	48 29	47 27	46 24	45 21	44 19	43 15	42 11	41 07	40 02	38 56	37 51	36 45		50
6	00	47 42	46 44	45 42	44 40	43 39	42 37	41 34	40 31	39 29	38 25	37 20	36 16	6	00
	10	46 54	45 56	44 56	43 57	42 57	41 56	40 55	39 54	38 53	37 49	36 47	35 44		10
	20	46 04	45 07	44 09	43 11	42 12	41 14	40 14	39 14	38 14	37 13	36 12	35 10		20
	30	45 12	44 16	43 19	42 23	41 26	40 28	39 31	38 33	37 34	36 34	35 35	34 35		30
	40	44 17	43 23	42 28	41 33	40 29	39 42	38 45	37 48	36 52	35 53	34 55	33 57		40
	50	43 21	42 28	41 35	40 41	39 47	38 54	37 57	37 02	36 07	35 10	34 14	33 17		50
7	00	42 23	41 32	40 40	39 47	38 55	38 01	37 08	36 14	35 20	34 25	33 30	32 35	7	00
	10	41 23	40 33	39 42	38 51	37 59	37 05	36 15	35 24	34 32	33 37	32 44	31 50		10
	20	40 21	39 32	38 43	37 53	37 03	36 13	35 22	34 32	33 40	32 48	31 56	31 04		20
	30	39 17	38 30	37 41	36 53	36 05	35 16	34 27	33 38	32 48	31 57	31 07	30 16		30
	40	38 11	37 25	36 39	35 51	35 04	34 17	33 29	32 41	31 54	31 04	30 16	29 27		40
	50	37 04	36 19	35 33	34 48	34 02	33 16	32 30	31 43	30 57	30 09	29 23	28 35		50
8	00	35 54	35 11	34 26	33 42	32 57	32 14	31 28	30 44	29 59	29 12	28 27	27 41	8	00
	10	34 42	34 01	33 17	32 35	31 52	31 09	30 26	29 43	28 59	28 15	27 31	26 46		10
	20	33 28	32 48	32 07	31 25	30 45	30 03	29 21	28 40	27 58	27 15	26 33	25 50		20
	30	32 13	31 34	30 55	30 15	29 35	28 55	28 15	27 35	26 55	26 13	25 32	24 52		30
	40	30 56	30 19	29 40	29 02	28 23	27 46	27 06	26 28	25 49	25 10	24 30	23 52		40
	50	29 37	29 00	28 24	27 48	27 11	26 34	25 57	25 20	24 43	24 05	23 28	22 51		50
9	00	28 15	27 41	27 06	26 31	25 56	25 20	24 45	24 11	23 35	22 59	22 24	21 47	9	00
	10	26 53	26 20	25 47	25 13	24 40	24 06	23 32	23 00	22 26	21 51	21 17	20 43		10
	20	25 28	24 57	24 26	23 54	23 23	22 51	22 18	21 47	21 15	20 42	20 10	19 37		20
	30	24 03	23 35	23 03	22 32	22 03	21 33	21 02	20 32	20 02	19 31	19 01	18 30		30
	40	22 34	22 06	21 38	21 10	20 41	20 14	19 45	19 17	18 49	18 19	17 51	17 23		40
	50	21 05	20 39	20 13	19 45	19 19	18 52	18 26	18 00	17 34	17 06	16 39	16 13		50
10	00	19 34	19 10	18 45	18 21	17 55	17 31	17 07	16 42	16 18	15 52	15 28	15 03	10	00
	10	18 02	17 39	17 16	16 54	16 31	16 08	15 46	15 23	15 00	14 36	14 14	13 51		10
	20	16 28	16 07	15 46	15 26	15 05	14 44	14 24	14 03	13 42	13 21	13 00	12 39		20
	30	14 53	14 35	14 15	13 58	13 38	13 19	13 00	12 41	12 22	12 03	11 44	11 26		30
	40	13 16	13 01	12 43	12 26	12 10	11 52	11 36	11 19	11 03	10 46	10 29	10 11		40
	50	11 40	11 25	11 10	10 55	10 40	10 26	10 11	9 56	9 42	9 27	9 12	8 57		50
11	00	10 02	9 49	9 36	9 23	9 11	8 58	8 45	8 32	8 19	8 07	7 54	7 41	11	00
	10	8 23	8 12	8 01	7 50	7 40	7 29	7 19	7 08	6 57	6 47	6 36	6 25		10
	20	6 42	6 35	6 25	6 17	6 09	6 00	5 51	5 43	5 35	5 25	5 17	5 08		20
	30	5 03	4 56	4 50	4 43	4 37	4 30	4 24	4 18	4 12	4 05	3 59	3 52		30
	40	3 22	3 17	3 13	3 09	3 04	3 00	2 56	2 52	2 48	2 44	2 39	2 35		40
	50	1 41	1 39	1 37	1 35	1 33	1 31	1 29	1 26	1 23	1 21	1 19	1 17		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 35°.				DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 35°.			
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.						
h.	m.	0	1	2	3	4	5	6	7	8	9	0	h.	m.					
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00					
	10	2 57	2 46	2 35	2 25	2 15	2 06	1 58	1 50	1 43	1 36	1 30		10					
	20	5 53	5 30	5 08	4 48	4 30	4 12	3 56	3 41	3 26	3 11	2 58		20					
	30	8 44	8 10	7 39	7 10	6 42	6 16	5 52	5 29	5 06	4 46	4 26		30					
	40	11 30	10 46	10 06	9 27	8 51	8 18	7 46	7 15	6 46	6 19	5 53		40					
	50	14 09	13 16	12 27	11 40	10 56	10 15	9 36	8 58	8 24	7 50	7 18		50					
1	00	16 39	15 39	14 42	13 48	12 57	12 08	11 23	10 39	9 58	9 19	8 40	1	00					
	10	19 02	17 54	16 50	15 49	14 52	13 57	13 05	12 16	11 29	10 44	10 00		10					
	20	21 15	20 00	18 51	17 45	16 42	15 41	14 44	13 49	12 57	12 06	11 18		20					
	30	23 17	21 59	20 44	19 32	18 24	17 20	16 17	15 18	14 21	13 25	12 32		30					
	40	25 11	23 48	22 29	21 14	20 01	18 52	17 45	16 41	15 40	14 41	13 43		40					
	50	26 54	25 29	24 07	22 47	21 31	20 18	19 08	18 01	16 54	15 51	14 51		50					
2	00	28 29	27 00	25 36	24 14	22 55	21 39	20 25	19 14	18 06	16 59	15 55	2	00					
	10	29 57	28 23	26 57	25 33	24 11	22 53	21 37	20 23	19 11	18 02	16 55		10					
	20	31 10	29 39	28 11	26 45	25 21	24 02	22 43	21 27	20 13	19 01	17 51		20					
	30	32 17	30 46	29 17	27 50	26 26	25 04	23 44	22 26	21 10	19 55	18 44		30					
	40	33 17	31 45	30 16	28 48	27 24	26 01	24 39	23 20	22 02	20 46	19 32		40					
	50	34 09	32 38	31 08	29 41	28 16	26 51	25 29	24 09	22 50	21 33	20 17		50					
3	00	34 55	33 24	31 55	30 28	29 02	27 38	26 15	24 53	23 33	22 15	20 58	3	00					
	10	35 34	34 04	32 35	31 08	29 43	28 18	26 55	25 33	24 13	22 53	21 36		10					
	20	36 07	34 38	33 10	31 44	30 18	28 54	27 30	26 08	24 48	23 28	22 09		20					
</																			

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 36°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 36°.	
Hour angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour angle.	
h.	m.	°	'	°	'	°	'	°	'	°	'	°	'	h.	m.
		0	00	0	00	0	00	0	00	0	00	0	00		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
0	10	169 07	168 16	167 14	166 00	164 29	162 43	160 02	157 49	154 54	151 54	144 48	133 36	1	10
0	20	158 52	157 17	155 28	153 18	150 43	147 33	143 39	138 46	132 33	124 37	114 35	102 21	2	20
0	30	149 37	147 35	145 16	142 34	139 27	135 50	131 33	126 32	120 37	113 43	105 52	97 06	3	30
0	40	141 33	139 16	136 42	133 45	130 34	127 04	122 46	118 06	112 53	107 07	100 49	94 04	4	40
0	50	134 38	132 15	129 38	126 45	123 35	120 06	116 15	112 04	107 31	102 37	97 25	91 57	5	50
1	00	128 44	126 22	123 47	121 00	118 00	114 45	111 16	107 30	103 31	99 18	94 53	90 17	1	00
1	10	123 40	121 22	118 54	116 15	113 27	110 54	107 16	103 54	100 23	96 41	92 51	88 53	2	10
1	20	119 29	117 07	114 45	112 16	109 40	106 54	103 59	100 57	97 48	94 31	91 06	87 38	3	20
1	30	115 32	113 25	110 58	108 52	106 26	103 53	101 13	98 28	95 36	92 38	89 36	86 30	4	30
1	40	112 12	110 12	108 06	105 54	103 38	101 17	98 49	96 18	93 41	90 59	88 14	85 26	5	40
1	50	109 14	107 20	105 21	103 18	101 11	98 59	96 42	94 22	91 58	89 31	87 00	84 25	6	50
2	00	106 35	104 46	102 54	100 57	98 58	96 55	94 48	92 38	90 24	88 08	85 49	83 26	2	00
2	10	104 10	102 26	100 40	98 50	96 58	95 02	93 03	91 01	88 57	86 50	84 41	82 30	3	10
2	20	101 57	100 18	98 37	96 53	95 06	93 18	91 27	89 33	87 36	85 37	83 37	81 34	4	20
2	30	99 55	98 20	96 43	95 05	93 24	91 41	89 56	88 09	86 19	84 28	82 34	80 39	5	30
2	40	97 59	96 29	94 57	93 23	91 47	90 10	88 30	86 49	85 05	83 20	81 33	79 45	6	40
2	50	96 11	94 45	93 17	91 48	90 17	88 44	87 09	85 33	83 54	82 15	80 33	78 51	7	50
3	00	94 29	93 06	91 42	90 16	88 49	87 21	85 50	84 19	82 45	81 11	79 35	77 57	3	00
3	10	92 51	91 32	90 12	88 50	87 26	86 00	84 34	83 07	81 38	80 08	78 36	77 04	4	10
3	20	91 19	90 02	88 45	87 26	86 05	84 44	83 21	81 57	80 31	79 06	77 35	76 10	5	20
3	30	89 49	88 36	87 21	86 04	84 47	83 29	82 10	80 49	79 27	78 04	76 40	75 16	6	30
3	40	88 23	87 12	85 59	84 45	83 31	82 16	80 59	79 41	78 22	77 03	75 43	74 22	7	40
3	50	86 59	85 50	84 40	83 28	82 17	81 04	79 49	78 34	77 19	76 03	74 45	73 27	8	50
4	00	85 38	84 30	83 22	82 13	81 04	79 53	78 41	77 30	76 16	75 02	73 47	72 32	4	00
4	10	84 17	83 11	82 06	80 58	79 51	78 43	77 33	76 24	75 13	74 02	72 49	71 36	5	10
4	20	82 58	81 54	80 50	79 45	78 39	77 33	76 26	75 19	74 10	73 02	71 50	70 40	6	20
4	30	81 40	80 38	79 36	78 32	77 28	76 24	75 19	74 13	73 06	71 59	70 52	69 42	7	30
4	40	80 23	79 23	78 22	77 20	76 18	75 15	74 12	73 07	72 02	70 58	69 52	68 45	8	40
4	50	79 07	78 08	77 08	76 08	75 07	74 06	73 04	72 02	70 59	69 56	68 51	67 46	9	50
5	00	77 50	76 53	75 55	74 56	73 56	72 56	71 56	70 56	69 54	68 52	67 49	66 47	5	00
5	10	76 34	75 38	74 41	73 43	72 45	71 47	70 49	69 49	68 47	67 49	66 48	65 47	6	10
5	20	75 19	74 23	73 28	72 31	71 35	70 38	69 40	68 42	67 43	66 45	65 45	64 45	7	20
5	30	74 02	73 08	72 14	71 18	70 23	69 27	68 30	67 34	66 37	65 39	64 40	63 42	8	30
5	40	72 46	71 52	70 59	70 05	69 10	68 16	67 21	66 25	65 29	64 33	63 36	62 39	9	40
5	50	71 29	70 37	69 44	68 51	67 58	67 04	66 10	65 16	64 20	63 26	62 31	61 34	10	50
6	00	70 11	69 20	68 28	67 35	66 43	65 50	64 58	64 05	63 11	62 17	61 22	60 28	6	00
6	10	68 52	68 02	67 11	66 20	65 28	64 37	63 45	62 52	61 59	61 07	60 14	59 20	7	10
6	20	67 34	66 43	65 53	65 03	64 13	63 22	62 31	61 40	60 48	59 57	59 04	58 12	8	20
6	30	66 13	65 23	64 33	63 45	62 56	62 06	61 15	60 25	59 34	58 44	57 52	57 01	9	30
6	40	64 51	64 03	63 15	62 26	61 37	60 48	59 59	59 09	58 19	57 29	56 39	55 50	10	40
6	50	63 28	62 40	61 53	61 04	60 17	59 29	58 40	57 52	57 03	56 15	55 26	54 37	11	50
7	00	62 03	61 17	60 29	59 42	58 55	58 08	57 20	56 33	55 45	54 58	54 09	53 21	7	00
7	10	60 36	59 51	59 05	58 19	57 31	56 45	55 58	55 12	54 25	53 38	52 51	52 04	8	10
7	20	59 09	58 23	57 37	56 52	56 07	55 21	54 35	53 49	53 03	52 17	51 31	50 46	9	20
7	30	57 39	56 54	56 09	55 24	54 39	53 55	53 10	52 25	51 40	50 55	50 10	49 25	10	30
7	40	56 07	55 23	54 37	53 53	53 11	52 26	51 43	50 59	50 15	49 31	48 47	48 02	11	40
7	50	54 32	53 49	53 05	52 22	51 39	50 57	50 13	49 30	48 47	48 04	47 21	46 38	12	50
8	00	52 56	52 13	51 31	50 48	50 06	49 24	48 42	48 00	47 17	46 35	45 53	45 11	8	00
8	10	51 17	50 36	49 54	49 12	48 30	47 49	47 08	46 27	45 45	45 05	44 23	43 42	9	10
8	20	49 36	48 55	48 14	47 34	46 52	46 12	45 32	44 52	44 11	43 32	42 51	42 11	10	20
8	30	47 51	47 11	46 31	45 52	45 11	44 33	43 53	43 14	42 34	41 56	41 17	40 38	11	30
8	40	46 05	45 25	44 46	44 07	43 29	42 48	42 12	41 34	40 55	40 19	39 40	39 03	12	40
8	50	44 14	43 36	42 59	42 20	41 42	41 05	40 28	39 51	39 15	38 38	38 01	37 25	13	50
9	00	42 21	41 43	41 07	40 30	39 53	39 18	38 42	38 06	37 30	36 55	36 20	35 45	9	00
9	10	40 24	39 49	39 13	38 37	38 02	37 28	36 52	36 18	35 44	35 10	34 36	34 02	10	10
9	20	38 25	37 50	37 16	36 42	36 08	35 35	35 01	34 28	33 54	33 23	32 51	32 18	11	20
9	30	36 23	35 49	35 16	34 43	34 11	33 38	33 07	32 35	32 03	31 33	31 02	30 31	12	30
9	40	34 16	33 45	33 13	32 42	32 10	31 40	31 10	30 40	30 10	29 40	29 10	28 42	13	40
9	50	32 07	31 36	31 07	30 37	30 07	29 39	29 09	28 41	28 13	27 46	27 17	26 50	14	50
10	00	29 54	29 25	28 58	28 30	28 02	27 35	27 07	26 41	26 14	25 49	25 22	24 56	10	00
10	10	27 38	27 12	26 45	26 19	25 53	25 28	25 02	24 37	24 12	23 49	23 24	23 00	11	10
10	20	25 20	24 55	24 30	24 06	23 42	23 18	22 55	22 32	22 09	21 46	21 24	21 02	12	20
10	30	22 58	22 35	22 13	21 50	21 28	21 07	20 45	20 24	20 03	19 43	19 22	19 01	13	30
10	40	20 32	20 12	19 52	19 32	19 12	18 52	18 33	18 14	17 55	17 36	17 18	17 00	14	40
10	50	18 05	17 47	17 29	17 11	16 54	16 36	16 19	16 02	15 45	15 29	15 12	14 57	15	50
11	00	15 35	15 19	15 03	14 48	14 32	14 18	14 02	13 48	13 33	13 19	13 05	12 51	11	00
11	10	13 02	12 49	12 36	12 23	12 10	11 57	11 45	11 32	11 20	11 09	10 56	10 45	12	10
11	20	10 28	10 17	10 06	9 57	9 46	9 36	9 26	9 16	9 06	8 57	8 46	8 37	13	20
11	30	7 53	7 44	7 36	7 29	7 21	7 13	7 05	6 58	6 50	6 43	6 36	6 28	14	30
11	40	5 16	5 11	5 05	5 00	4 54	4 49	4 44	4 39	4 34	4 29	4 24	4 20	15	40
11	50	2 38	2 35	2 33	2 30	2 27	2 24	2 22	2 20	2 17	2 14	2 12	2 10	16	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	17	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 36°.														DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 36°.																			
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°				
h.	m.	°	'	°	'	°	'	°	'	°	'	°	'	°	'	h.	m.	°	'	°	'	°	'	°	'	°	'	°	'	h.	m.	°	'	°	'	°	'	°	'	°	'	°	'	°	'
0	00	89	16	62	48	44	12	32	43	25	28	20	36	17	10	0	00	89	16	62	48	44	12	32	43	25	28	0	00	89	16	62	48	44	12	32	43	25	28	20	36	17	10		
0	10	88	32	74	33	61	54	51	24	43	03	36	31	31	23	0	10	88	32	74	33	61	54	51	24	43	03	0	10	88	32	74	33	61	54	51	24	43	03	36	31	31	23		
0	20	87	48	78	22	69	17	61	00	53	38	47	17	41	51	0	20	87	48	78	22	69	17	61	00	53	38	0	20	87	48	78	22	69	17	61	00	53	38	47	17	41	51		
0	30	87	03	79	57	72	57	66	17	60	04	54	20	49																															

AZIMUTH OR TRUE BEARING.

LATITUDE 36°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 36°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	10
0	20	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	20
0	30	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	30
0	40	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	40
0	50	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	50
1	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	1	00
1	10	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	1	10
1	20	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	1	20
1	30	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	1	30
1	40	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	1	40
1	50	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	1	50
2	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	2	00
2	10	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	2	10
2	20	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	2	20
2	30	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	2	30
2	40	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	2	40
2	50	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	2	50
3	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	3	00
3	10	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	3	10
3	20	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	3	20
3	30	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	3	30
3	40	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	3	40
3	50	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	3	50
4	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	4	00
4	10	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	4	10
4	20	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	4	20
4	30	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	4	30
4	40	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	4	40
4	50	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	4	50
5	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	5	00
5	10	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	5	10
5	20	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	5	20
5	30	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	5	30
5	40	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	5	40
5	50	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	5	50
6	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	6	00
6	10	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	6	10
6	20	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	6	20
6	30	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	6	30
6	40	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	6	40
6	50	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	6	50
7	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	7	00
7	10	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	7	10
7	20	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	7	20
7	30	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	7	30
7	40	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	7	40
7	50	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	7	50
8	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	8	00
8	10	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	8	10
8	20	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	8	20
8	30	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	8	30
8	40	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	8	40
8	50	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	8	50
9	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	9	00
9	10	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	9	10
9	20	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	9	20
9	30	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	9	30
9	40	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	9	40
9	50	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	9	50
10	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	10	00
10	10	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	10	10
10	20	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	10	20
10	30	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	10	30
10	40	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	10	40
10	50	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	10	50
11	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	11	00
11	10	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	11	10
11	20	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	11	20
11	30	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	11	30
11	40	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	11	40
11	50	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 36°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 36°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	o	o	o	o	o	o	o	o	o	o	o	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	3 04	2 51	2 40	2 29	2 20	2 10	2 02	1 54	1 46	1 39	1 31	1	10	
	20	6 06	5 42	5 19	4 58	4 39	4 20	4 03	3 46	3 31	3 17	3 03	2	20	
	30	9 04	8 28	7 55	7 24	6 55	6 28	6 02	5 38	5 15	4 54	4 33	3	30	
	40	11 56	11 10	10 26	9 46	9 08	8 33	7 59	7 27	6 57	6 29	6 02	4	40	
	50	14 40	13 44	12 52	12 03	11 17	10 34	9 53	9 14	8 37	8 02	7 28	5	50	
1	00	17 15	16 11	15 11	14 14	13 21	12 30	11 42	10 57	10 13	9 32	8 54	1	00	
	10	19 41	18 30	17 22	16 19	15 19	14 21	13 27	12 35	11 46	11 00	10 16	1	10	
	20	21 56	20 40	19 26	18 17	17 10	16 08	15 08	14 11	13 17	12 24	11 34	2	20	
	30	24 02	22 40	21 21	20 06	18 56	17 48	16 43	15 41	14 41	13 45	12 50	3	30	
	40	25 56	24 31	23 08	21 50	20 34	19 22	18 13	17 07	16 03	15 01	14 03	4	40	
	50	27 41	26 12	24 46	23 24	22 06	20 50	19 37	18 27	17 18	16 13	15 11	5	50	
2	00	29 15	27 45	26 16	24 52	23 30	22 12	20 55	19 41	18 31	17 22	16 16	2	00	
	10	30 41	29 09	27 39	26 12	24 47	23 26	22 08	20 51	19 38	18 26	17 17	2	10	
	20	31 57	30 22	28 53	27 24	25 58	24 35	23 14	21 56	20 39	19 26	18 14	3	20	
	30	33													

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 37°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 37°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.			
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00		
	10	169 56	169 12	168 22	167 21	166 08											

AZIMUTH OR TRUE BEARING.

LATITUDE 37°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 37°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	o /												h.	m.
		0	1	2	3	4	5	6	7	8	9	10	11		
0	00	180 00	89 15	62 29	43 48	32 20	25 08	20 18	16 55	14 23	12 28	10 56	9 42	0	00
	10	115 42	88 30	74 21	61 34	51 00	42 38	36 06	30 58	26 54	23 38	20 58	18 44	0	10
	20	102 29	80 15	67 01	55 00	44 33	36 06	30 58	26 54	23 38	20 58	18 44	16 41	0	20
	30	97 10	78 44	66 29	55 00	44 33	36 06	30 58	26 54	23 38	20 58	18 44	16 41	0	30
	40	94 05	86 59	79 47	72 43	65 58	59 41	53 57	48 48	44 12	40 08	36 33	33 22	0	40
	50	91 56	86 14	80 27	74 43	69 07	63 45	58 43	54 01	49 40	45 43	42 07	38 51	0	50
1	00	90 14	85 28	80 38	75 49	71 04	66 26	61 59	57 43	53 43	49 59	46 30	43 15	1	00
	10	88 48	84 42	80 34	76 24	72 16	68 12	64 14	60 24	56 44	53 14	49 56	46 48	1	10
	20	87 33	83 57	80 18	76 38	72 59	69 23	65 49	62 20	58 58	55 43	52 36	49 37	1	20
	30	86 22	83 10	79 50	76 40	73 23	70 09	66 55	63 45	60 39	57 38	54 42	51 52	1	30
	40	85 17	82 24	79 29	76 32	73 33	70 36	67 40	64 46	61 54	59 04	56 20	53 39	1	40
	50	84 15	81 37	78 58	76 16	73 33	70 50	68 08	65 27	62 47	60 10	57 36	55 04	1	50
2	00	83 16	80 50	78 23	75 55	73 25	70 54	68 24	65 55	63 26	60 58	58 33	56 10	2	00
	10	82 18	80 03	77 43	75 29	73 10	70 50	68 30	66 11	63 52	61 33	59 16	57 00	2	10
	20	81 21	79 15	77 08	75 00	72 51	70 40	68 29	66 18	64 08	61 57	59 48	57 39	2	20
	30	80 25	78 27	76 29	74 28	72 26	70 24	68 21	66 17	64 15	62 11	60 08	58 05	2	30
	40	79 29	77 39	75 46	73 53	71 59	70 03	68 07	66 11	64 15	62 17	60 21	58 25	2	40
	50	78 35	76 50	75 04	73 16	71 28	69 39	67 50	65 59	64 08	62 17	60 26	58 35	2	50
3	00	77 40	76 00	74 20	72 38	70 55	69 12	67 28	65 42	63 57	62 11	60 24	58 38	3	00
	10	76 45	75 10	73 34	71 57	70 20	68 41	67 02	65 22	63 41	62 00	60 19	58 37	3	10
	20	75 50	74 19	72 48	71 16	69 43	68 08	66 33	64 57	63 21	61 44	60 07	58 29	3	20
	30	74 55	73 28	72 00	70 32	69 03	67 33	66 02	64 30	62 58	61 25	59 51	58 17	3	30
	40	74 00	72 36	71 12	69 48	68 21	66 55	65 28	63 59	62 31	61 02	59 32	58 01	3	40
	50	73 03	71 43	70 23	69 01	67 39	66 15	64 52	63 27	62 01	60 36	59 10	57 42	3	50
4	00	72 08	70 50	69 33	68 14	66 55	65 34	64 13	62 52	61 30	60 07	58 43	57 19	4	00
	10	71 10	69 56	68 42	67 26	66 09	64 51	63 33	62 15	60 55	59 35	58 14	56 53	4	10
	20	70 14	69 01	67 49	66 36	65 22	64 06	62 51	61 35	60 18	59 01	57 43	56 24	4	20
	30	69 15	68 06	66 55	65 44	64 33	63 20	62 07	60 54	59 39	58 24	57 08	55 53	4	30
	40	68 16	67 09	66 01	64 52	63 43	62 32	61 21	60 10	58 58	57 46	56 33	55 19	4	40
	50	67 17	66 11	65 05	63 58	62 51	61 43	60 34	59 25	58 15	57 04	55 53	54 42	4	50
5	00	66 17	65 13	64 09	63 04	61 58	60 51	59 45	58 38	57 30	56 21	55 13	54 03	5	00
	10	65 16	64 13	63 11	62 07	61 04	59 59	58 54	57 49	56 43	55 36	54 29	53 21	5	10
	20	64 12	63 12	62 12	61 10	60 08	59 05	58 02	56 58	55 54	54 50	53 44	52 39	5	20
	30	63 10	62 10	61 11	60 11	59 11	58 09	57 08	56 06	55 04	54 01	52 57	51 53	5	30
	40	62 05	61 07	60 10	59 11	58 13	57 13	56 12	55 12	54 11	53 09	52 08	51 05	5	40
	50	61 00	60 03	59 07	58 10	57 12	56 14	55 16	54 17	53 17	52 18	51 17	50 17	5	50
6	00	59 52	58 57	58 02	57 07	56 11	55 14	54 17	53 20	52 22	51 23	50 24	49 26	6	00
	10	58 44	57 51	56 57	56 02	55 07	54 11	53 16	52 21	51 24	50 27	49 30	48 32	6	10
	20	57 35	56 42	55 49	54 56	54 03	53 09	52 15	51 20	50 25	49 30	48 34	47 38	6	20
	30	56 24	55 32	54 41	53 49	52 57	52 04	51 11	50 17	49 24	48 30	47 36	46 41	6	30
	40	55 11	54 21	53 30	52 40	51 49	50 58	50 06	49 13	48 22	47 29	46 36	45 42	6	40
	50	53 57	53 08	52 19	51 29	50 40	49 49	48 59	48 08	47 17	46 25	45 34	44 41	6	50
7	00	52 42	51 54	51 06	50 17	49 29	48 39	47 50	47 00	46 10	45 21	44 30	43 39	7	00
	10	51 24	50 37	49 50	49 03	48 16	47 27	46 40	45 51	45 03	44 14	43 25	42 35	7	10
	20	50 05	49 19	48 34	47 47	47 00	46 14	45 27	44 40	43 53	43 06	42 17	41 29	7	20
	30	48 44	48 00	47 15	46 29	45 44	44 59	44 13	43 27	42 42	41 55	41 09	40 22	7	30
	40	47 22	46 38	45 54	45 10	44 27	43 42	42 57	42 12	41 28	40 43	39 58	39 13	7	40
	50	45 57	45 14	44 32	43 49	43 06	42 22	41 40	40 57	40 14	39 29	38 46	38 02	7	50
8	00	44 30	43 48	43 07	42 25	41 44	41 02	40 20	39 38	38 56	38 14	37 31	36 49	8	00
	10	43 01	42 21	41 41	41 00	40 20	39 39	38 58	38 20	37 38	36 56	36 15	35 33	8	10
	20	41 31	40 52	40 12	39 33	38 54	38 15	37 35	36 56	36 16	35 37	34 57	34 17	8	20
	30	39 58	39 20	38 40	38 04	37 26	36 48	36 10	35 31	34 54	34 15	33 37	32 58	8	30
	40	38 23	37 46	37 09	36 32	35 56	35 19	34 42	34 06	33 29	32 52	32 15	31 38	8	40
	50	36 46	36 10	35 35	34 59	34 24	33 49	33 14	32 38	32 03	31 27	30 52	30 17	8	50
9	00	35 06	34 32	33 58	33 24	32 50	32 16	31 43	31 09	30 35	30 00	29 27	28 52	9	00
	10	33 25	32 52	32 19	31 46	31 14	30 42	30 09	29 37	29 05	28 32	28 00	27 27	9	10
	20	31 42	31 10	30 39	30 07	29 37	29 06	28 35	28 04	27 34	27 02	26 31	26 00	9	20
	30	29 56	29 25	28 56	28 26	27 57	27 28	26 58	26 28	25 59	25 30	25 01	24 32	9	30
	40	28 08	27 39	27 11	26 43	26 15	25 47	25 20	24 52	24 24	23 57	23 30	23 02	9	40
	50	26 17	25 50	25 24	24 58	24 31	24 05	23 39	23 14	22 48	22 21	21 56	21 30	9	50
10	00	24 25	24 00	23 36	23 11	22 46	22 22	21 58	21 33	21 09	20 45	20 22	19 57	10	00
	10	22 31	22 07	21 45	21 21	20 59	20 36	20 13	19 52	19 29	19 06	18 45	18 22	10	10
	20	20 35	20 13	19 53	19 31	19 11	18 50	18 29	18 08	17 48	17 28	17 07	16 47	10	20
	30	18 36	18 17	17 59	17 39	17 20	17 01	16 42	16 23	16 05	15 47	15 28	15 10	10	30
	40	16 38	16 20	16 02	15 45	15 29	15 11	14 55	14 37	14 21	14 04	13 48	13 31	10	40
	50	14 36	14 21	14 05	13 50	13 35	13 20	13 05	12 51	12 37	12 21	12 07	11 52	10	50
11	00	12 34	12 20	12 07	11 54	11 41	11 29	11 15	11 02	10 50	10 37	10 25	10 12	11	00
	10	10 30	10 19	10 08	9 57	9 46	9 35	9 25	9 13	9 03	8 52	8 42	8 32	11	10
	20	8 25	8 16	8 08	7 58	7 50	7 41	7 33	7 24	7 16	7 07	6 58	6 50	11	20
	30	6 20	6 13	6 06	6 00	5 53	5 46	5 40	5 34	5 27	5 20	5 14	5 08	11	30
	40	4 14	4 09	4 04	4 00	3 56	3 51	3 46	3 43	3 38	3 34	3 30	3 25	11	40
	50	2 07	2 05	2 02	2 00	1 57	1 56	1 54	1 51	1 49	1 47	1 45	1 43	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 37°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 37°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	8 41	7 50	7 06	6 27	5 55	5 26	5 01	4 37	4 17	3 58	3 42	3 26		10
	20	16 52	15 16	13 54	12 42	11 39	10 43	9 54	9 09	8 29	7 53	7 20	6 48		20
	30	24 12	22 04	20 11	18 31	17 03	15 44	14 34	13 30	12 31	11 39	10 50	10 07		30
	40	30 32	28 03	25 49	23 49	22 01	20 24	18 55	17 35	16 22	15 15	14 13	13 16		40
	50	35 52	33 10	30 44	28 30	26 28	24 38	22 56	21 22	19 57	18 37	17 24	16 17		50
1	00	40 15	37 29	34 56	32 35	30 25	28 24	26 34	24 50	23 14	21 45	20 23	19 05	1	00
	10	43 51	41 05	38 31	36 07	33 51	31 46	29 48	27 57	26 14	24 38	23 08	21 43		10
	20	46 47	44 04	41 31	39 07	36 50	34 40	32 39	30 45	28 57	27 14	25 38	24 14		20
	30	49 09	46 32	44 02	41 39	39 23	37 13	35 10	33 13	31 22	29 36	27 56	26 20		30
	40	51 04	48 33	46 08	43 48	41 33	39 24	37 21	35 23	33 30	31 42	29 59	28 20		40
	50	52 35	50 11	47 51	45 35	43 23	41 18	39 15	37 17	35 23	33 34	31 49	30 08		50
2	00	53 48	51 31	49 16	47 05	44 57	42 52	40 52	38 55	37 02	35 13	33 27	31 45	2	00
	10	54 47	52 35	50 25	48 18	46 15	44 13	42 15	40 20	38 28	36 39	34 53	33 11		10
	20	55 30	53 25	51 21	49 18	47 18	45 20	43 25	41 32	39 42	37 54	36 09	34 26		20
	30	56 04	54 04	52 05	50 07	48 10	46 17	44 24	42 34	40 45	38 59	37 15	35 33		30
	40	56 28	54 33	52 39	50 45	48 52	47 02	45 12	43 25	41 39	39 54	38 12	36 30		40
	50	56 44	54 53	53 03	51 15	49 26	47 38	45 52	44 07	42 23	40 41	39 00	37 21		50
3	00	56 52	55 07	53 21	51 35	49 51	48 07	46 23	44 41	42 59	41 19	39 41	38 03	3	00
	10	56 54	55 12	53 31	51 50	50 08	48 27	46 45	45 08	43 29	41 51	40 14	38 37		10
	20	56 51	55 14	53 36	51 58	50 19	48 42	47 05	45 28	43 51	42 16	40 41	39 06		20
	30	56 44	55 09	53 34	52 00	50 25	48 51	47 16	45 42	44 08	42 35	41 03	39 29		30
	40	56 31	55 00	53 29	51 58	50 26	48 54	47 22	45 51	44 19	42 48	41 17	39 46		40
	50	56 15	54 47	53 18	51 50	50 21	48 52	47 24	45 54	44 25	42 56	41 27	39 58		50
4	00	55 54	54 39	53 04	51 39	50 13	48 46	47 20	45 54	44 27	43 00	41 33	40 06	4	00
	10	55 31	54 09	52 47	51 23	50 00	48 36	47 12	45 48	44 24	42 59	41 34	40 09		10
	20	55 05	53 45	52 25	51 05	49 43	48 22	47 00	45 38	44 17	42 54	41 31	40 08		20
	30	54 35	53 19	52 01	50 42	49 24	48 05	46 45	45 26	44 06	42 45	41 24	40 03		30
	40	54 04	52 49	51 33	50 18	49 03	47 44	46 27	45 09	43 51	42 33	41 14	39 54		40
	50	53 30	52 16	51 03	49 49	48 35	47 20	46 05	44 50	43 33	42 17	41 00	39 43		50
5	00	52 52	51 42	50 30	49 19	48 06	46 54	45 41	44 27	43 13	41 59	40 43	39 28	5	00
	10	52 13	51 04	49 55	48 46	47 35	46 24	45 13	44 01	42 49	41 36	40 23	39 09		10
	20	51 32	50 25	49 18	48 10	47 01	45 52	44 43	43 33	42 22	41 12	40 01	38 48		20
	30	50 48	49 44	48 38	47 32	46 25	45 18	44 11	43 02	41 54	40 45	39 34	38 24		30
	40	50 03	48 59	47 55	46 51	45 46	44 41	43 35	42 28	41 21	40 14	39 06	37 58		40
	50	49 15	48 13	47 11	46 09	45 06	44 02	42 58	41 53	40 47	39 42	38 36	37 29		50
6	00	48 26	47 25	46 25	45 24	44 22	43 20	42 18	41 15	40 11	39 07	38 02	36 57	6	00
	10	47 34	46 36	45 36	44 37	43 37	42 37	41 35	40 34	39 32	38 30	37 27	36 23		10
	20	46 41	45 43	44 46	43 49	42 50	41 51	40 52	39 51	38 51	37 51	36 50	35 47		20
	30	45 46	44 50	43 54	42 58	42 01	41 03	40 05	39 07	38 08	37 10	36 10	35 10		30
	40	44 49	43 54	42 59	42 05	41 09	40 13	39 17	38 20	37 23	36 26	35 28	34 29		40
	50	43 50	42 56	42 04	41 10	40 16	39 22	38 28	37 31	36 36	35 41	34 44	33 47		50
7	00	42 48	41 57	41 05	40 14	39 21	38 29	37 36	36 41	35 47	34 54	33 58	33 02	7	00
	10	41 45	40 56	40 05	39 15	38 24	37 33	36 41	35 49	34 56	34 04	33 11	32 16		10
	20	40 41	39 53	39 04	38 15	37 25	36 35	35 45	34 54	34 03	33 12	32 21	31 29		20
	30	39 35	38 48	38 01	37 13	36 25	35 35	34 45	33 59	33 09	32 20	31 30	30 39		30
	40	38 27	37 41	36 55	36 09	35 22	34 36	33 49	33 00	32 13	31 25	30 36	29 47		40
	50	37 17	36 33	35 48	35 04	34 19	33 33	32 47	32 01	31 15	30 29	29 41	28 54		50
8	00	36 05	35 22	34 39	33 56	33 12	32 28	31 45	31 00	30 15	29 30	28 45	27 58	8	00
	10	34 52	34 11	33 29	32 47	32 05	31 22	30 40	29 57	29 14	28 31	27 47	27 02		10
	20	33 37	32 57	32 16	31 37	30 55	30 15	29 34	28 52	28 10	27 29	26 47	26 04		20
	30	32 20	31 41	31 03	30 23	29 45	29 05	28 26	27 46	27 06	26 27	25 45	25 05		30
	40	31 02	30 24	29 47	29 10	28 32	27 54	27 16	26 38	26 00	25 22	24 43	24 04		40
	50	29 41	29 05	28 29	27 54	27 18	26 42	26 06	25 28	24 52	24 15	23 39	23 01		50
9	00	28 19	27 45	27 10	26 36	26 02	25 27	24 52	24 17	23 43	23 08	22 33	21 57	9	00
	10	26 55	26 22	25 50	25 18	24 45	24 11	23 39	23 06	22 32	22 00	21 26	20 51		10
	20	25 29	24 58	24 28	23 57	23 26	22 55	22 24	21 52	21 21	20 49	20 18	19 45		20
	30	24 02	23 33	23 04	22 36	22 06	21 37	21 07	20 37	20 07	19 38	19 08	18 37		30
	40	22 34	22 06	21 39	21 12	20 44	20 16	19 49	19 20	18 53	18 25	17 56	17 28		40
	50	21 04	20 39	20 13	19 47	19 21	18 55	18 29	18 03	17 37	17 11	16 45	16 18		50
10	00	19 33	19 09	18 45	18 21	17 58	17 33	17 09	16 45	16 20	15 57	15 32	15 07	10	00
	10	18 00	17 38	17 16	16 53	16 31	16 10	15 48	15 25	15 03	14 40	14 17	13 55		10
	20	16 26	16 06	15 46	15 26	15 06	14 45	14 24	14 05	13 43	13 24	13 03	12 42		20
	30	14 51	14 33	14 14	13 56	13 38	13 19	13 01	12 42	12 24	12 06	11 48	11 28		30
	40	13 15	12 58	12 42	12 25	12 09	11 53	11 36	11 20	11 04	10 47	10 31	10 14		40
	50	11 38	11 23	11 09	10 54	10 40	10 26	10 11	9 57	9 42	9 28	9 13	8 58		50
11	00	10 00	9 47	9 35	9 22	9 10	8 58	8 46	8 33	8 21	8 08	7 56	7 43	11	00
	10	8 21	8 10	8 00	7 50	7 39	7 29	7 19	7 08	6 58	6 47	6 37	6 27		10
	20	6 42	6 33	6 25	6 17	6 08	6 00	5 52	5 43	5 35	5 26	5 18	5 10		20
	30	5 02	4 56	4 43	4 34	4 25	4 17	4 09	4 01	3 53	3 45	3 37	3 29		30
	40	3 21	3 17	3 12	3 08	3 04	3 00	2 56	2 52	2 48	2 44	2 40	2 35		40
	50	1 40	1 38	1 36	1 34	1 32	1 30	1 28	1 26	1 24	1 22	1 20	1 18		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 37°.				DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 37°.			
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.				
h.	m.	°	°	°	°	°	°	°	°	°	°	°	h.	m.			
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00			
	10	3 12	2 58	2 47	2 35	2 24	2 15	2 05	1 57	1 49	1 42	1 34		10			
	20	6 20	5 55	5 31	5 09	4 48	4 29	4 11	3 54	3 38	3 22	3 08		20			
	30	9 25	8 47	8 12	7 39	7 08	6 41	6 13	5 48	5 24	5 02	4 40		30			
	40	12 23	11 34	10 49	10 06	9 27	8 48	8 13	7 40	7 09	6 40	6 11		40			
	50	15 13	14 14	13 20	12 28	11 39	10 53	10 10	9 30	8 51	8 15	7 40		50			
1	00	17 53	16 45	15 42	14 42	13 46	12 53	12 03	11 15	10 30	9 47	9 07	1	00			
	10	20 23	19 14	17 57	16 51	15 47	14 47	13 50	12 57	12 06	11 18	10 31		10			
	20	22 41	21 20	20 04	18 50	17 42	16 36	15 33	14 34	13 37	12 44	11 51		20			
	30	24 49	23 23	22 02	20 44	19 29	18 19	17 12	16 06	15 05	14 06	13 09		30			
	40	26 46	25 16	23 50	22 28	21 09	19 54	18 42									

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East, and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 38°.				DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 38°.			
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.		h. m.		h. m.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.	° /	° /	° /	° /
		00	00	00	00	00	00	00	00	00	00	00	00						
		10	10	10	10	10	10	10	10	10	10	10	10						
		20	20	20	20	20	20	20	20	20	20	20	20						
		30	30	30	30	30	30	30	30	30	30	30	30						
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00	180 00	180 00	180 00	180 00
	10	170 37	170 01	169 18	168 28	167 27	166 14	164 46	162 52	160 25	157 06	152 26	145 25		10	170 37	170 01	169 18	168 28
	20	161 38	160 29	159 10	157 38	155 51	153 43	151 10	148 04	144 13	139 22	133 11	125 14		20	161 38	160 29	159 10	157 38
	30	153 18	151 46	150 00	148 00	145 43	143 03	139 59	136 22	132 07	127 05	121 09	114 11		30	153 18	151 46	150 00	148 00
	40	145 47	143 59	141 58	139 43	137 10	134 18	131 04	127 24	123 15	118 34	113 17	107 26		40	145 47	143 59	141 58	139 43
	50	139 08	137 11	135 03	132 41	130 04	127 12	124 01	120 31	116 39	112 25	107 49	102 49		50	139 08	137 11	135 03	132 41
1	00	133 18	131 17	129 06	126 44	124 10	121 23	118 22	115 06	111 34	107 46	103 43	99 25	1	00	133 18	131 17	129 06	126 44
	10	128 10	126 09	124 00	121 42	119 13	116 34	113 45	110 43	107 29	104 05	100 29	96 43		10	128 10	126 09	124 00	121 42
	20	123 39	121 41	119 35	117 22	115 01	112 30	109 52	107 04	104 08	101 03	97 50	94 29		20	123 39	121 41	119 35	117 22
	30	119 39	117 45	115 44	113 36	111 23	109 02	106 34	103 59	101 17	98 28	95 34	92 33		30	119 39	117 45	115 44	113 36
	40	116 06	114 16	112 20	110 19	108 12	106 00	103 42	101 18	98 49	96 14	93 35	90 50		40	116 06	114 16	112 20	110 19
	50	112 55	111 09	109 18	107 24	105 24	103 19	101 10	98 57	96 38	94 15	91 49	89 18		50	112 55	111 09	109 18	107 24
2	00	110 02	108 20	106 34	104 45	102 52	100 55	98 53	96 48	94 39	92 27	90 12	87 52	2	00	110 02	108 20	106 34	104 45
	10	107 24	105 46	104 05	102 22	100 34	98 43	96 49	94 53	92 52	90 48	88 41	86 32		10	107 24	105 46	104 05	102 22
	20	104 59	103 25	101 49	100 10	98 28	96 43	94 56	93 04	91 11	89 16	87 17	85 17		20	104 59	103 25	101 49	100 10
	30	102 44	101 15	99 42	98 08	96 30	94 50	93 09	91 25	89 38	87 48	85 57	84 04		30	102 44	101 15	99 42	98 08
	40	100 38	99 12	97 43	96 14	94 41	93 05	91 29	89 50	88 08	86 25	84 40	82 54		40	100 38	99 12	97 43	96 14
	50	98 41	97 18	95 53	94 27	92 58	91 27	89 55	88 20	86 45	85 07	83 27	81 45		50	98 41	97 18	95 53	94 27
3	00	96 49	95 29	94 07	92 45	91 19	89 53	88 25	86 54	85 23	83 50	82 16	80 39	3	00	96 49	95 29	94 07	92 45
	10	95 02	93 45	92 27	91 07	89 45	88 22	86 57	85 32	84 05	82 36	81 05	79 34		10	95 02	93 45	92 27	91 07
	20	93 21	92 07	90 51	89 34	88 16	86 55	85 35	84 13	82 48	81 23	79 57	78 30		20	93 21	92 07	90 51	89 34
	30	91 44	90 32	89 19	88 05	86 49	85 32	84 14	82 55	81 34	80 12	78 49	77 26		30	91 44	90 32	89 19	88 05
	40	90 09	88 59	87 49	86 37	85 24	84 10	82 55	81 39	80 21	79 03	77 43	76 22		40	90 09	88 59	87 49	86 37
	50	88 39	87 30	86 22	85 12	84 02	82 50	81 37	80 23	79 08	77 54	76 37	75 19		50	88 39	87 30	86 22	85 12
4	00	87 10	86 04	84 57	83 50	82 41	81 32	80 22	79 11	77 58	76 45	75 31	74 17	4	00	87 10	86 04	84 57	83 50
	10	85 42	84 38	83 34	82 28	81 22	80 15	79 07	77 58	76 48	75 37	74 25	73 13		10	85 42	84 38	83 34	82 28
	20	84 18	83 15	82 12	81 08	80 04	78 58	77 52	76 45	75 38	74 29	73 20	72 10		20	84 18	83 15	82 12	81 08
	30	82 54	81 52	80 51	79 49	78 46	77 43	76 39	75 34	74 28	73 21	72 15	71 09		30	82 54	81 52	80 51	79 49
	40	81 31	80 31	79 31	78 31	77 30	76 28	75 25	74 22	73 19	72 14	71 09	70 03		40	81 31	80 31	79 31	78 31
	50	80 09	79 11	78 13	77 14	76 13	75 13	74 12	73 11	72 09	71 06	70 02	68 59		50	80 09	79 11	78 13	77 14
5	00	78 47	77 50	76 53	75 56	74 57	73 58	72 58	71 59	70 59	69 58	68 56	67 54	5	00	78 47	77 50	76 53	75 56
	10	77 27	76 31	75 35	74 39	73 41	72 44	71 45	70 47	69 48	68 48	67 49	66 47		10	77 27	76 31	75 35	74 39
	20	76 06	75 10	74 16	73 21	72 25	71 29	70 32	69 35	68 37	67 39	66 41	65 41		20	76 06	75 10	74 16	73 21
	30	74 44	73 51	72 57	72 03	71 08	70 13	69 18	68 23	67 26	66 29	65 32	64 35		30	74 44	73 51	72 57	72 03
	40	73 23	72 31	71 38	70 45	69 51	68 58	68 03	67 09	66 13	65 18	64 22	63 26		40	73 23	72 31	71 38	70 45
	50	72 02	71 11	70 19	69 27	68 34	67 42	66 48	65 56	65 01	64 06	63 12	62 17		50	72 02	71 11	70 19	69 27
6	00	70 40	69 50	68 59	68 07	67 16	66 24	65 32	64 40	63 47	62 54	62 00	61 07	6	00	70 40	69 50	68 59	68 07
	10	69 18	68 28	67 38	66 48	65 57	65 06	64 14	63 23	62 32	61 40	60 46	59 55		10	69 18	68 28	67 38	66 48
	20	67 54	67 05	66 15	65 27	64 37	63 48	62 58	62 07	61 16	60 25	59 34	58 43		20	67 54	67 05	66 15	65 27
	30	66 30	65 41	64 53	64 05	63 16	62 27	61 38	60 49	59 59	59 09	58 19	57 29		30	66 30	65 41	64 53	64 05
	40	65 04	64 16	63 29	62 42	61 54	61 06	60 17	59 29	58 40	57 51	57 02	56 14		40	65 04	64 16	63 29	62 42
	50	63 38	62 51	62 04	61 18	60 30	59 43	58 56	58 08	57 21	56 33	55 45	54 57		50	63 38	62 51	62 04	61 18
7	00	62 10	61 24	60 38	59 52	59 06	58 20	57 33	56 46	55 59	55 12	54 26	53 39	7	00	62 10	61 24	60 38	59 52
	10	60 40	59 55	59 09	58 24	57 39	56 54	56 08	55 23	54 36	53 51	53 05	52 18		10	60 40	59 55	59 09	58 24
	20	59 09	58 24	57 40	56 55	56 11	55 26	54 41	53 57	53 12	52 27	51 42	50 57		20	59 09	58 24	57 40	56 55
	30	57 36	56 52	56 08	55 25	54 40	53 57	53 13	52 30	51 46	51 02	50 18	49 34		30	57 36	56 52	56 08	55 25
	40	56 02	55 18	54 35	53 52	53 09	52 27	51 43	51 01	50 18	49 34	48 51	48 08		40	56 02	55 18	54 35	53 52
	50	54 24	53 41	53 00	52 18	51 36	50 54	50 11	49 29	48 48	48 06	47 24	46 43		50	54 24	53 41	53 00	52 18
8	00	52 45	52 03	51 22	50 40	49 59	49 19	48 37	47 57	47 16	46 34	45 54	45 13	8	00	52 45	52 03	51 22	50 40
	10	51 04	50 23	49 42	49 02	48 22	47 42	47 02	46 22	45 41	45 02	44 22	43 42		10	51 04	50 23	49 42	49 02
	20	49 20	48 40	48 00	47 21	46 42	46 02	45 23	44 45	44 05	43 27	42 48	42 09		20	49 20	48 40	48 00	47 21
	30	47 34	46 55	46 16	45 37	44 59	44 21	43 43	43 06	42 27	41 50	41 12	40 34		30	47 34	46 55	46 16	45 37
	40	45 45	45 07	44 29	43 52	43 14	42 38	42 00	41 24	40 47	40 10	39 34	38 57		40	45 45	45 07	44 29	43 52
	50	43 53	43 16	42 39	42 03	41 27	40 51	40 15	39 40	39 03	38 29	37 53	37 18		50	43 53	43 16	42 39	42 03
9	00	41 58	41 22	40 47	40 12	39 37	39 02	38 27	37 53	37 19	36 44	36 10	35 37	9	00	41 58	41 22	40 47	40 12
	10	40 01	39 26	38 52	38 18	37 44	37 11	36 37	36 04	35 31	34 59	34 26	33 54		10	40 01	39 26	38 52	38 18
	20	38 01	37 27	36 54	36 22	35 50	35 18	34 45	34 14	33 42	33 10	32 39	32 08		20	38 01	37 27	36 54	36 22
	30	35 58	35 26	34 54	34 23	33 51	33 21												

AZIMUTH OR TRUE BEARING.

LATITUDE 38°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 38°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	°	°	°	°	°	°	°	°	°	°	°	°	h.	m.
0	00	180 00	180 00	.....	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	134 18	115 59	89 14	62 09	43 24	31 57	24 48	20 01	16 39	14 09	12 15	10 44		10
	20	115 06	102 37	88 28	74 07	61 13	50 34	42 10	35 38	30 33	26 31	23 16	20 37		20
	30	106 11	97 15	87 41	78 01	68 43	60 15	52 47	46 22	40 55	36 19	32 24	29 05		30
	40	101 01	94 07	86 55	79 37	72 27	65 38	59 17	53 30	48 19	43 43	39 37	36 02		40
	50	97 31	91 55	86 09	80 17	74 28	68 48	63 23	58 17	53 33	49 11	45 12	41 34		50
1	00	94 54	90 12	85 22	80 29	75 35	70 46	66 10	61 34	57 16	53 14	49 28	45 57	1	00
	10	92 47	88 44	84 35	80 23	76 10	71 58	67 52	63 51	59 59	56 16	52 43	49 24		10
	20	91 00	87 26	83 48	80 07	76 24	72 43	69 03	65 27	61 56	58 30	55 13	52 04		20
	30	89 26	86 15	83 01	79 44	76 26	73 06	69 48	66 33	63 20	60 12	57 08	54 10		30
	40	88 02	85 09	82 14	79 16	76 16	73 16	70 16	67 18	64 21	61 27	58 35	55 49		40
	50	86 43	84 06	81 26	78 43	76 00	73 15	70 30	67 46	65 03	62 21	59 42	57 05		50
2	00	85 30	83 05	80 38	78 09	75 39	73 06	70 34	68 02	65 31	63 00	60 31	58 03	2	00
	10	84 20	82 06	79 50	77 32	75 12	72 52	70 30	68 08	65 47	63 26	61 05	58 47		10
	20	83 13	81 08	79 01	76 52	74 42	72 31	70 19	68 06	65 54	63 41	61 28	59 17		20
	30	82 08	80 11	78 12	76 11	74 09	72 07	70 02	67 57	65 53	63 48	61 43	59 39		30
	40	81 04	79 14	77 22	75 29	73 34	71 39	69 41	67 44	65 46	63 48	61 49	59 51		40
	50	80 02	78 18	76 32	74 45	72 57	71 07	69 16	67 25	65 33	63 41	61 49	59 58		50
3	00	79 01	77 22	75 42	74 00	72 17	70 33	68 48	67 03	65 17	63 29	61 42	59 54	3	00
	10	78 01	76 26	74 51	73 14	71 36	69 58	68 17	66 36	64 56	63 13	61 31	59 48		10
	20	77 00	75 30	73 59	72 27	70 53	69 18	67 43	66 07	64 31	62 53	61 15	59 37		20
	30	76 00	74 34	73 07	71 38	70 09	68 39	67 07	65 36	64 03	62 29	60 56	59 21		30
	40	75 00	73 38	72 14	70 49	69 23	67 56	66 29	65 01	63 32	62 02	60 32	59 01		40
	50	74 00	72 41	71 20	69 59	68 36	67 13	65 49	64 24	62 59	61 33	60 06	58 37		50
4	00	73 00	71 43	70 26	69 08	67 48	66 28	65 07	63 45	62 23	61 00	59 34	58 11	4	00
	10	72 00	70 45	69 31	68 15	66 58	65 41	64 22	63 04	61 45	60 24	59 03	57 42		10
	20	70 59	69 47	68 35	67 22	66 08	64 53	63 38	62 21	61 04	59 47	58 29	57 10		20
	30	69 57	68 49	67 38	66 28	65 15	64 04	62 50	61 37	60 23	59 08	57 51	56 35		30
	40	68 56	67 49	66 41	65 32	64 23	63 13	62 02	60 51	59 39	58 26	57 12	55 58		40
	50	67 53	66 49	65 43	64 36	63 29	62 21	61 12	60 03	58 53	57 42	56 31	55 19		50
5	00	66 50	65 47	64 43	63 38	62 32	61 27	60 20	59 13	58 05	56 57	55 48	54 38	5	00
	10	65 47	64 45	63 42	62 39	61 36	60 32	59 27	58 22	57 16	56 09	55 02	53 55		10
	20	64 42	63 42	62 41	61 39	60 37	59 35	58 33	57 29	56 25	55 20	54 15	53 09		20
	30	63 38	62 37	61 38	60 38	59 38	58 37	57 36	56 34	55 32	54 28	53 25	52 22		30
	40	62 29	61 32	60 34	59 36	58 37	57 38	56 38	55 38	54 37	53 35	52 34	51 33		40
	50	61 21	60 25	59 29	58 33	57 35	56 38	55 40	54 41	53 41	52 42	51 42	50 41		50
6	00	60 12	59 18	58 23	57 28	56 32	55 35	54 39	53 42	52 44	51 45	50 47	49 49	6	00
	10	59 02	58 09	57 15	56 21	55 27	54 31	53 36	52 40	51 44	50 47	49 51	48 53		10
	20	57 51	56 59	56 07	55 14	54 21	53 27	52 33	51 38	50 44	49 49	48 53	47 57		20
	30	56 38	55 47	54 56	54 04	53 12	52 20	51 27	50 34	49 41	48 47	47 53	46 58		30
	40	55 24	54 34	53 44	52 54	52 02	51 12	50 21	49 29	48 37	47 45	46 52	45 59		40
	50	54 08	53 19	52 31	51 41	50 52	50 02	49 11	48 22	47 31	46 39	45 48	44 57		50
7	00	52 51	52 04	51 16	50 28	49 39	48 51	48 02	47 13	46 23	45 33	44 43	43 53	7	00
	10	51 32	50 46	49 59	49 12	48 25	47 38	46 49	46 02	45 13	44 25	43 37	42 47		10
	20	50 12	49 26	48 41	47 55	47 09	46 22	45 36	44 50	44 03	43 15	42 28	41 40		20
	30	48 49	48 05	47 21	46 36	45 51	45 06	44 20	43 35	42 50	42 04	41 18	40 32		30
	40	47 25	46 42	45 59	45 16	44 32	43 48	43 03	42 20	41 35	40 51	40 06	39 21		40
	50	46 00	45 18	44 35	43 52	43 10	42 28	41 45	41 02	40 19	39 36	38 52	38 09		50
8	00	44 31	43 51	43 10	42 29	41 46	41 06	40 24	39 43	39 01	38 19	37 37	36 55	8	00
	10	43 02	42 23	41 43	41 03	40 23	39 42	39 02	38 22	37 41	37 00	36 20	35 40		10
	20	41 30	40 51	40 13	39 34	38 55	38 16	37 37	36 59	36 20	35 40	35 01	34 22		20
	30	39 57	39 19	38 42	38 05	37 27	36 49	36 12	35 34	34 56	34 18	33 40	33 03		30
	40	38 21	37 44	37 09	36 33	35 56	35 20	34 43	34 07	33 31	32 54	32 18	31 42		40
	50	36 43	36 09	35 33	34 59	34 23	33 49	33 14	32 39	32 04	31 29	30 54	30 19		50
9	00	35 03	34 30	33 56	33 22	32 49	32 16	31 42	31 08	30 35	30 02	29 28	28 55	9	00
	10	33 21	32 49	32 17	31 45	31 12	30 40	30 08	29 36	29 04	28 33	28 01	27 29		10
	20	31 37	31 07	30 36	30 05	29 34	29 04	28 33	28 03	27 32	27 02	26 32	26 02		20
	30	29 50	29 22	28 52	28 23	27 54	27 25	26 57	26 28	25 59	25 30	25 02	24 33		30
	40	28 03	27 35	27 07	26 40	26 13	25 44	25 18	24 51	24 23	23 56	23 28	23 02		40
	50	26 12	25 46	25 20	24 55	24 29	24 03	23 37	23 12	22 46	22 20	21 55	21 29		50
10	00	24 20	23 56	23 31	23 08	22 43	22 19	21 55	21 31	21 08	20 44	20 21	19 56	10	00
	10	22 25	22 03	21 41	21 19	20 56	20 34	20 12	19 50	19 28	19 05	18 43	18 22		10
	20	20 30	20 09	19 48	19 28	19 07	18 47	18 26	18 06	17 46	17 26	17 05	16 46		20
	30	18 32	18 14	17 54	17 35	17 17	16 59	16 40	16 22	16 04	15 45	15 27	15 09		30
	40	16 32	16 16	15 59	15 42	15 26	15 08	14 52	14 36	14 19	14 03	13 47	13 31		40
	50	14 33	14 17	14 02	13 47	13 32	13 18	13 03	12 49	12 34	12 20	12 05	11 52		50
11	00	12 30	12 17	12 04	11 52	11 39	11 26	11 13	11 01	10 49	10 36	10 23	10 12	11	00
	10	10 27	10 16	10 05	9 55	9 44	9 33	9 23	9 12	9 02	8 51	8 41	8 31		10
	20	8 33	8 14	8 05	7 57	7 48	7 40	7 31	7 23	7 14	7 06	6 58	6 49		20
	30	6 18	6 12	6 05	5 58	5 52	5 45	5 39	5 32	5 26	5 20	5 14	5 07		30
	40	4 12	4 08	4 03	3 59	3 55	3 51	3 46	3 42	3 38	3 34	3 29	3 25		40
	50	2 07	2 04	2 02	1 59	1 57	1 55	1 54	1 51	1 49	1 47	1 45	1 43		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 38°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 38°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	9 32	8 31	7 41	6 57	6 20	5 47	5 19	4 53	4 31	4 10	3 51	3 35		10
	20	18 24	16 33	14 59	13 37	12 26	11 24	10 29	9 40	8 56	8 16	7 40	7 07		20
	30	26 14	23 47	21 40	19 47	18 09	16 41	15 23	14 13	13 10	12 13	11 20	10 33		30
	40	32 51	30 03	27 34	25 20	23 21	21 34	19 58	18 30	17 11	15 57	14 51	13 50		40
	50	38 18	35 19	32 38	30 11	27 58	25 58	24 07	22 25	20 54	19 28	18 10	16 57		50
1	00	42 42	39 42	36 56	34 22	32 01	29 50	27 50	26 00	24 17	22 42	21 14	19 51	1	00
	10	46 14	43 16	40 31	37 55	35 31	33 16	31 09	29 12	27 22	25 39	24 03	22 33		10
	20	49 04	46 12	43 30	40 55	38 29	36 12	34 03	32 01	30 07	28 19	26 36	25 01		20
	30	51 19	48 34	45 57	43 26	41 02	38 45	36 35	34 31	32 33	30 42	28 57	27 16		30
	40	53 06	50 29	47 55	45 31	43 09	40 55	38 45	36 41	34 43	32 49	31 00	29 18		40
	50	54 31	52 02	49 36	47 14	44 57	42 45	40 36	38 34	36 35	34 41	32 51	31 07		50
2	00	55 39	53 15	50 56	48 40	46 27	44 17	42 12	40 11	38 13	36 19	34 29	32 44	2	00
	10	56 27	54 13	51 59	49 49	47 40	45 36	43 33	41 33	39 37	37 45	35 55	34 09		10
	20	57 06	54 58	52 51	50 45	48 41	46 39	44 40	42 44	40 50	38 58	37 09	35 24		20
	30	57 34	55 31	53 30	51 28	49 29	47 32	45 36	43 42	41 51	40 02	38 14	36 30		30
	40	57 52	55 55	53 59	52 03	50 08	48 14	46 21	44 31	42 42	40 55	39 09	37 26		40
	50	58 03	56 11	54 19	52 28	50 37	48 47	46 59	45 11	43 24	41 40	39 56	38 14		50
3	00	58 07	56 19	54 32	52 45	50 59	49 13	47 27	45 42	43 59	42 16	40 35	38 54	3	00
	10	58 05	56 21	54 39	52 55	51 13	49 30	47 47	46 06	44 25	42 46	41 06	39 28		10
	20	57 58	56 19	54 39	52 59	51 20	49 41	48 02	46 24	44 46	43 08	41 31	39 55		20
	30	57 45	56 10	54 34	52 58	51 23	49 47	48 10	46 35	45 00	43 25	41 50	40 16		30
	40	57 29	55 58	54 25	52 52	51 20	49 47	48 14	46 41	45 08	43 36	42 03	40 31		40
	50	57 10	55 41	54 12	52 42	51 13	49 43	48 12	46 43	45 12	43 42	42 12	40 42		50
4	00	56 46	55 21	53 54	52 27	51 02	49 34	48 07	46 39	45 11	43 44	42 16	40 48	4	00
	10	56 19	54 57	53 34	52 09	50 46	49 22	47 57	46 31	45 06	43 40	42 15	40 48		10
	20	55 50	54 30	53 10	51 49	50 27	49 05	47 43	46 19	44 57	43 33	42 09	40 46		20
	30	55 18	54 01	52 43	51 24	50 05	48 46	47 25	46 04	44 44	43 23	42 01	40 39		30
	40	54 43	53 29	52 13	50 57	49 39	48 22	47 04	45 46	44 27	43 08	41 49	40 30		40
	50	54 07	52 54	51 40	50 26	49 11	47 57	46 41	45 25	44 08	42 51	41 33	40 15		50
5	00	53 27	52 17	51 05	49 53	48 41	47 28	46 14	45 00	43 46	42 31	41 15	39 59	5	00
	10	52 46	51 37	50 27	49 18	48 07	46 56	45 44	44 33	43 20	42 06	40 53	39 39		10
	20	52 03	50 56	49 48	48 40	47 32	46 22	45 12	44 02	42 52	41 40	40 29	39 16		20
	30	51 17	50 12	49 06	47 59	46 53	45 46	44 38	43 30	42 21	41 11	40 01	38 50		30
	40	50 29	49 26	48 21	47 17	46 13	45 07	44 01	42 54	41 47	40 39	39 31	38 23		40
	50	49 40	48 38	47 36	46 33	45 31	44 26	43 22	42 17	41 11	40 06	39 00	37 52		50
6	00	48 48	47 48	46 48	45 47	44 45	43 43	42 40	41 37	40 34	39 29	38 25	37 19	6	00
	10	47 55	46 57	45 58	44 59	43 59	42 59	41 57	40 55	39 54	38 51	37 48	36 44		10
	20	47 00	46 03	45 06	44 08	43 09	42 11	41 12	40 12	39 12	38 11	37 09	36 07		20
	30	46 03	45 08	44 12	43 15	42 19	41 22	40 24	39 26	38 28	37 28	36 28	35 28		30
	40	45 04	44 10	43 16	42 22	41 26	40 31	39 34	38 37	37 40	36 43	35 45	34 46		40
	50	44 04	43 12	42 19	41 25	40 32	39 38	38 43	37 48	36 52	35 56	35 00	34 03		50
7	00	43 03	42 12	41 19	40 27	39 36	38 43	37 50	36 57	36 02	35 08	34 13	33 18	7	00
	10	41 57	41 08	40 18	39 28	38 37	37 47	36 55	36 02	35 10	34 18	33 25	32 30		10
	20	40 52	40 04	39 16	38 26	37 37	36 48	35 58	35 07	34 17	33 26	32 33	31 41		20
	30	39 45	38 58	38 11	37 24	36 36	35 47	34 58	34 10	33 21	32 32	31 42	30 51		30
	40	38 35	37 50	37 05	36 19	35 32	34 46	33 59	33 12	32 24	31 35	30 47	29 58		40
	50	37 25	36 41	35 57	35 12	34 28	33 42	32 57	32 11	31 25	30 38	29 51	29 05		50
8	00	36 12	35 29	34 46	34 04	33 20	32 37	31 52	31 08	30 23	29 39	28 54	28 08	8	00
	10	34 58	34 17	33 36	32 53	32 12	31 30	30 48	30 05	29 22	28 39	27 55	27 11		10
	20	33 42	33 02	32 22	31 42	31 02	30 22	29 41	28 59	28 18	27 36	26 54	26 12		20
	30	32 24	31 46	31 07	30 28	29 50	29 11	28 31	27 52	27 13	26 33	25 52	25 12		30
	40	31 04	30 28	29 51	29 14	28 37	27 59	27 22	26 44	26 06	25 28	24 49	24 11		40
	50	29 44	29 08	28 33	27 57	27 22	26 46	26 10	25 34	24 57	24 21	23 44	23 07		50
9	00	28 21	27 47	27 13	26 39	26 06	25 31	24 56	24 22	23 47	23 12	22 38	22 03	9	00
	10	26 57	26 25	25 52	25 20	24 48	24 16	23 43	23 10	22 36	22 03	21 30	20 57		10
	20	25 31	25 01	24 29	23 59	23 29	22 58	22 27	21 56	21 25	20 53	20 21	19 49		20
	30	24 03	23 35	23 06	22 37	22 08	21 39	21 10	20 40	20 11	19 42	19 11	18 41		30
	40	22 34	22 08	21 41	21 13	20 45	20 18	19 51	19 24	18 56	18 28	18 00	17 32		40
	50	21 05	20 39	20 12	19 48	19 22	18 58	18 31	18 05	17 40	17 14	16 47	16 21		50
10	00	19 32	19 09	18 45	18 22	17 58	17 35	17 11	16 46	16 23	15 58	15 34	15 10	10	00
	10	18 00	17 38	17 16	16 55	16 33	16 10	15 49	15 27	15 04	14 43	14 20	13 57		10
	20	16 26	16 06	15 46	15 26	15 06	14 46	14 25	14 05	13 45	13 25	13 04	12 45		20
	30	14 51	14 33	14 15	13 56	13 38	13 21	13 02	12 43	12 25	12 07	11 49	11 30		30
	40	13 14	12 58	12 42	12 26	12 10	11 53	11 38	11 21	11 05	10 48	10 32	10 15		40
	50	11 37	11 23	11 09	10 54	10 41	10 26	10 12	9 57	9 44	9 29	9 15	9 00		50
11	00	9 59	9 47	9 34	9 22	9 10	8 58	8 45	8 33	8 21	8 08	7 57	7 44	11	00
	10	8 20	8 10	8 00	7 49	7 39	7 29	7 19	7 09	6 59	6 48	6 38	6 27		10
	20	6 41	6 33	6 24	6 16	6 08	6 00	5 52	5 43	5 35	5 28	5 19	5 10		20
	30	5 01	4 55	4 49	4 42	4 36	4 30	4 24	4 18	4 12	4 06	4 00	3 53		30
	40	3 21	3 17	3 13	3 08	3 04	3 00	2 56	2 52	2 48	2 44	2 40	2 36		40
	50	1 41	1 38	1 36	1 34	1 32	1 30	1 28	1 26	1 24	1 22	1 20	1 17		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 38°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 38°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	3 19	3 06	2 53	2 41	2 30	2 20	2 10	2 01	1 52	1 44	1 37		10	
	20	6 37	6 10	5 43	5 20	4 58	4 37	4 18	4 01	3 44	3 28	3 13		20	
	30	9 49	9 08	8 31	7 56	7 23	6 54	6 25	5 59	5 34	5 10	4 47		30	
	40	12 54	12 01	11 13	10 28	9 45	9 06	8 29	7 55	7 22	6 50	6 21		40	
	50	15 49	14 47	13 48	12 54	12 02</									

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 39°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 39°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	°	°	°	°	°	°	°	°	°	°	°	°	h.	m.
		00	00	00	00	00	00	00	00	00	00	00	00		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
0	10	171 13	170 42	170 05	169 23	168 33	167 34	166 22	164 55	163 02	160 37	157 21	152 43	0	10
0	20	162 46	161 46	160 38	159 20	157 49	156 03	153 57	151 25	148 20	144 31	139 42	133 32	0	20
0	30	154 50	153 29	151 57	150 13	148 14	145 58	143 19	140 15	136 40	132 24	127 23	121 26	0	30
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1	00	135 20	133 30	131 30	129 19	126 58	124 22	121 35	118 34	115 17	111 44	107 55	103 50	1	00
1	10	130 12	128 20	126 21	124 11	121 52	119 24	116 44	113 54	110 51	107 37	104 11	100 33	1	10
1	20	125 39	123 45	121 50	119 44	117 31	115 09	112 39	110 00	107 12	104 14	101 06	97 51	1	20
1	30	121 36	119 47	117 53	115 51	113 43	111 29	109 07	106 38	104 03	101 20	98 30	95 33	1	30
1	40	117 57	116 12	114 22	112 25	110 23	108 16	106 03	103 45	101 20	98 50	96 14	93 33	1	40
1	50	114 41	112 59	111 13	109 21	107 26	105 26	103 20	101 10	98 56	96 36	94 13	91 45	1	50
2	00	111 42	110 03	108 22	106 35	104 46	102 52	100 54	98 52	96 46	94 36	92 23	90 06	2	00
2	10	108 58	107 24	105 47	104 05	102 20	100 32	98 41	96 46	94 48	92 47	90 42	88 35	2	10
2	20	106 27	104 57	103 23	101 46	100 07	98 24	96 39	94 50	92 59	91 05	89 08	87 08	2	20
2	30	104 07	102 41	101 11	99 38	98 02	96 25	94 45	93 02	91 17	89 29	87 39	85 47	2	30
2	40	101 56	100 33	99 07	97 38	95 07	94 34	92 58	91 21	89 41	87 59	86 15	84 29	2	40
2	50	99 54	98 33	97 10	95 45	94 18	92 49	91 18	89 45	88 10	86 33	84 55	83 15	2	50
3	00	97 58	96 40	95 20	93 58	92 35	91 10	89 43	88 13	86 43	85 11	83 37	82 01	3	00
3	10	96 08	94 52	93 35	92 16	90 55	89 33	88 10	86 45	85 18	83 51	82 21	80 49	3	10
3	20	94 22	93 09	91 55	90 39	89 21	88 02	86 42	85 20	83 57	82 33	81 07	79 40	3	20
3	30	92 41	91 30	90 18	89 04	87 49	86 33	85 16	83 58	82 38	81 17	79 55	78 31	3	30
3	40	91 03	89 54	88 45	87 33	86 21	85 07	83 53	82 37	81 21	80 03	78 44	77 23	3	40
3	50	89 27	88 22	87 14	86 05	84 55	83 44	82 32	81 18	80 05	78 49	77 34	76 16	3	50
4	00	87 56	86 51	85 45	84 38	83 31	82 22	81 13	80 01	78 50	77 38	76 24	75 10	4	00
4	10	86 25	85 22	84 18	83 13	82 08	81 01	79 54	78 45	77 36	76 26	75 15	74 03	4	10
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4	30	83 30	82 30	81 30	80 28	79 26	78 22	77 19	76 15	75 09	74 04	72 57	71 51	4	30
4	40	82 05	81 06	80 07	79 07	78 06	77 04	76 04	75 00	73 57	72 53	71 48	70 42	4	40
4	50	80 41	79 43	78 45	77 46	76 48	75 48	74 47	73 46	72 45	71 43	70 39	69 35	4	50
5	00	79 16	78 19	77 23	76 25	75 28	74 30	73 31	72 31	71 31	70 31	69 30	68 28	5	00
5	10	77 52	76 57	76 02	75 06	74 09	73 12	72 15	71 17	70 18	69 19	68 20	67 19	5	10
5	20	76 29	75 35	74 41	73 46	72 51	71 55	70 59	70 03	69 05	68 07	67 09	66 10	5	20
5	30	75 06	74 13	73 20	72 26	71 32	70 37	69 43	68 47	67 51	66 55	65 58	65 00	5	30
5	40	73 42	72 51	71 58	71 06	70 13	69 19	68 25	67 31	66 37	65 41	64 46	63 51	5	40
5	50	72 19	71 28	70 37	69 45	68 54	68 01	67 08	66 15	65 22	64 28	63 34	62 39	5	50
6	00	70 55	70 05	69 15	68 24	67 33	66 41	65 50	64 58	64 05	63 13	62 20	61 26	6	00
6	10	69 30	68 41	67 51	67 01	66 12	65 21	64 31	63 40	62 48	61 55	61 05	60 13	6	10
6	20	68 05	67 17	66 28	65 39	64 50	64 00	63 11	62 22	61 31	60 41	59 50	58 59	6	20
6	30	66 39	65 51	65 04	64 15	63 27	62 38	61 50	61 01	60 12	59 23	58 33	57 43	6	30
6	40	65 11	64 25	63 38	62 03	61 15	60 28	59 40	58 52	58 03	57 15	56 26	55 36	6	40
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7	00	62 13	61 29	60 43	59 57	59 11	58 25	57 40	56 53	56 08	55 22	54 35	53 47	7	00
7	10	60 42	59 57	59 12	58 27	57 43	56 57	56 14	55 28	54 43	53 58	53 12	52 26	7	10
7	20	59 09	58 26	57 41	56 57	56 13	55 30	54 46	54 01	53 16	52 32	51 48	51 03	7	20
7	30	57 34	56 52	56 09	55 26	54 43	53 59	53 16	52 32	51 49	51 05	50 23	49 39	7	30
7	40	55 58	55 16	54 34	53 51	53 09	52 27	51 45	51 02	50 20	49 38	48 55	48 13	7	40
7	50	54 20	53 39	52 57	52 15	51 34	50 53	50 12	49 30	48 48	48 08	47 26	46 44	7	50
8	00	52 40	51 59	51 18	50 38	49 57	49 16	48 37	47 56	47 16	46 35	45 55	45 14	8	00
8	10	50 57	50 18	49 38	48 58	48 19	47 38	46 59	46 20	45 40	45 01	44 22	43 42	8	10
8	20	49 12	48 34	47 55	47 16	46 36	45 58	45 20	44 41	44 03	43 26	42 47	42 09	8	20
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8	40	45 35	44 58	44 22	43 45	43 08	42 31	41 55	41 18	40 43	40 07	39 31	38 55	8	40
8	50	43 43	43 07	42 31	41 55	41 20	40 44	40 10	39 35	38 59	38 25	37 50	37 15	8	50
9	00	41 48	41 13	40 38	40 03	39 30	38 55	38 21	37 47	37 14	36 40	36 06	35 33	9	00
9	10	39 49	39 16	38 42	38 09	37 37	37 04	36 31	35 58	35 25	34 54	34 22	33 50	9	10
9	20	37 49	37 17	36 45	36 13	35 41	35 08	34 38	34 07	33 36	33 05	32 35	32 04	9	20
9	30	35 45	35 15	34 44	34 13	33 43	33 13	32 43	32 12	31 43	31 14	30 44	30 15	9	30
9	40	33 39	33 10	32 40	32 11	31 42	31 13	30 45	30 16	29 49	29 21	28 53	28 25	9	40
9	50	31 30	31 02	30 34	30 06	29 39	29 11	28 45	28 18	27 52	27 26	26 59	26 33	9	50
10	00	29 18	28 51	28 26	27 59	27 34	27 08	26 43	26 17	25 53	25 29	25 04	24 39	10	00
10	10	27 03	26 38	26 14	25 49	25 26	25 01	24 38	24 15	23 51	23 28	23 06	22 44	10	10
10	20	24 46	24 22	24 00	23 37	23 16	22 53	22 31	22 10	21 49	21 27	21 06	20 46	10	20
10	30	22 26	22 04	21 44	21 23	21 03	20 43	20 23	20 03	19 44	19 24	19 06	18 47	10	30
10	40	20 03	19 44	19 25	19 07	18 48	18 30	18 13	17 55	17 37	17 20	17 03	16 46	10	40
10	50	17 38	17 21	17 04	16 48	16 32	16 16	16 00	15 44	15 29	15 13	14 59	14 43	10	50
11	00	15 11	14 56	14 42	14 27	14 13	14 00	13 46	13 33	13 19	13 06	12 53	12 40	11	00
11	10	12 42	12 30	12 18	12 06	11 53	11 42	11 31	11 19	11 09	10 57	10 45	10 34	11	10
11	20	10 12	10 02	9 51	9 42	9 33	9 23	9 14	9 05	8 56	8 46	8 38	8 29	11	20
11	30	7 39	7 32	7 25	7 17	7 10	7 04	6 56	6 49	6 43	6 36	6 29	6 23	11	30
11	40	5 07	5 03	4 57	4 52	4 47	4 43	4 38	4 34	4 28	4 25	4 20	4 16	11	40
11	50	2 34	2 31	2 29	2 26	2 22	2 19	2 16	2 12	2 10	2 07	2 04	2 01	11	50
12	00	0 06	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

AZIMUTH OR TRUE BEARING.

LATITUDE 39°.				DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 39°.													
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°		
h.	m.	o /		o /		o /		o /		o /		o /		o /		o /		o /		o /		o /		o /		o /		h.	m.
		0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
0	10	145 45	134 40	116 17	89 13	61 48	42 58	31 33	24 27	19 43	16 23	13 55	12 02	10 00	08 00	06 00	04 00	02 00	00 00	00 00	00 00	00 00	00 00	00 00	00 00	00 00	00 00	0	10
0	20	125 33	115 22	102 47	82 26	73 54	60 51	50 08	41 43	35 12	30 07	26 06	22 53	20 00	17 00	14 00	11 00	08 00	05 00	02 00	00 00	00 00	00 00	00 00	00 00	00 00	00 00	0	20
0	30	114 26	106 21	97 19	87 38	77 50	68 25	59 51	52 20	45 54	40 26	35 50	31 56	28 00	24 00	20 00	16 00	12 00	08 00	04 00	00 00	00 00	00 00	00 00	00 00	00 00	00 00	0	30
0	40	107 37	101 07	94 09	86 51	79 27	72 11	65 16	58 52	53 02	47 49	43 12	39 07	35 00	31 00	27 00	23 00	19 00	15 00	11 00	07 00	03 00	00 00	00 00	00 00	00 00	00 00	0	40
0	50	102 57	97 35	91 55	86 03	80 07	74 13	68 29	63 00	57 51	53 04	48 46	44 40	40 00	35 00	30 00	25 00	20 00	15 00	10 00	05 00	00 00	00 00	00 00	00 00	00 00	00 00	0	50
1	00	99 29	94 55	90 09	85 16	80 18	75 21	70 28	65 43	61 09	56 49	52 45	48 55	45 00	41 00	37 00	33 00	29 00	25 00	21 00	17 00	13 00	09 00	05 00	01 00	00 00	00 00	1	00
1	10	96 45	92 46	88 41	84 28	80 12	75 56	71 41	67 31	63 27	59 32	55 46	52 13	48 40	45 00	41 00	37 00	33 00	29 00	25 00	21 00	17 00	13 00	09 00	05 00	01 00	00 00	1	10
1	20	94 28	90 58	87 21	83 40	79 56	76 10	72 25	68 42	65 03	61 30	58 04	54 43	51 20	47 40	44 00	40 00	36 00	32 00	28 00	24 00	20 00	16 00	12 00	08 00	04 00	00 00	1	20
1	30	92 31	89 22	86 08	82 52	79 32	76 11	72 49	69 29	66 10	62 54	59 44	56 38	53 20	49 40	46 00	42 00	38 00	34 00	30 00	26 00	22 00	18 00	14 00	10 00	06 00	02 00	1	30
1	40	90 47	87 56	85 02	82 03	79 03	76 01	72 58	69 56	66 55	63 56	60 59	58 06	55 00	51 40	48 00	44 00	40 00	36 00	32 00	28 00	24 00	20 00	16 00	12 00	08 00	04 00	1	40
1	50	89 13	86 36	83 57	81 15	78 30	75 45	72 57	70 11	67 24	64 38	61 54	59 12	56 20	53 00	49 40	46 00	42 00	38 00	34 00	30 00	26 00	22 00	18 00	14 00	10 00	06 00	1	50
2	00	87 45	85 22	82 54	80 26	77 55	75 21	72 49	70 14	67 39	65 06	62 33	60 01	57 20	54 40	52 00	49 20	46 40	44 00	41 20	38 40	36 00	33 20	30 40	28 00	25 20	22 40	2	00
2	10	86 23	84 11	81 54	79 36	77 17	74 55	72 33	70 09	67 45	65 22	62 58	60 37	58 16	55 54	53 33	51 12	48 50	46 28	44 06	41 44	39 22	37 00	34 38	32 16	29 54	27 32	2	10
2	20	85 06	83 02	80 56	78 47	76 37	74 24	72 12	69 57	67 45	65 29	63 14	61 00	58 44	56 28	54 12	51 56	49 40	47 24	45 08	42 52	40 36	38 20	36 04	33 48	31 32	29 16	2	20
2	30	83 52	81 56	79 57	77 56	75 55	73 52	71 47	69 41	67 35	65 31	63 21	61 14	59 06	56 58	54 50	52 42	50 34	48 26	46 18	44 10	42 02	39 54	37 46	35 38	33 30	31 22	2	30
2	40	82 41	80 51	78 59	77 06	75 11	73 15	71 18	69 20	67 21	65 21	63 21	61 24	59 22	57 20	55 18	53 16	51 14	49 12	47 10	45 08	43 06	41 04	39 02	37 00	35 00	33 00	2	40
2	50	81 31	79 48	78 02	76 15	74 26	72 37	70 45	68 54	67 01	65 08	63 14	61 20	59 24	57 27	55 30	53 32	51 34	49 36	47 38	45 40	43 42	41 44	39 46	37 48	35 50	33 52	2	50
3	00	80 24	78 46	77 06	75 23	73 40	71 56	70 12	68 25	66 38	64 50	63 02	61 13	59 24	57 34	55 44	53 54	52 04	50 14	48 24	46 34	44 44	42 54	41 04	39 14	37 24	35 34	3	00
3	10	79 17	77 43	76 08	74 31	72 54	71 14	69 35	67 53	66 12	64 28	62 45	61 01	59 16	57 30	55 44	53 58	52 12	50 26	48 40	46 54	45 08	43 22	41 36	39 50	38 04	36 18	3	10
3	20	78 12	76 42	75 11	73 39	72 06	70 31	68 56	67 19	65 42	64 04	62 25	60 46	59 06	57 25	55 44	53 63	51 82	49 40	47 58	46 16	44 34	42 52	41 10	39 28	37 46	35 64	3	20
3	30	77 07	75 40	74 14	72 45	71 16	69 45	68 14	66 43	65 09	63 35	62 00	60 25	58 50	57 14	55 38	53 62	51 86	49 40	47 58	46 16	44 34	42 52	41 10	39 28	37 46	35 64	3	30
3	40	76 03	74 40	73 17	71 52	70 26	69 00	67 32	66 03	64 34	63 04	61 33	60 01	58 29	56 56	55 24	53 52	52 20	50 48	49 16	47 44	46 12	44 40	43 08	41 36	39 64	37 92	3	40
3	50	74 58	73 39	72 19	70 57	69 35	68 11	66 48	65 22	63 56	62 30	61 03	59 34	58 06	56 38	55 10	53 42	52 14	50 46	49 18	47 50	46 22	44 54	43 26	41 58	40 30	39 02	3	50
4	00	73 54	72 38	71 20	70 02	68 43	67 22	66 02	64 40	63 17	61 54	60 29	59 05	57 40	56 15	54 50	53 25	52 00	50 40	49 20	48 00	46 40	45 20	44 00	42 40	41 20	40 00	4	00
4	10	72 50	71 36	70 21	69 06	67 50	66 32	65 14	63 55	62 35	61 15	59 54	58 32	57 10	55 48	54 26	53 04	51 82	50 40	49 20	48 00	46 40	45 20	44 00	42 40	41 20	40 00	4	10
4	20	71 46	70 34	69 22	68 09	66 55	65 40	64 25	63 09	61 53	60 35	59 16	57 57	56 37	55 16	53 54	52 32	51 10	50 00	48 40	47 20	46 00	44 40	43 20	42 00	40 40	39 20	4	20
4	30	70 42	69 32	68 22	67 11	66 00	64 48	63 35	62 21	61 07	59 52	58 36	57 20	56 03	54 86	53 69	52 52	51 34	50 20	49 00	47 40	46 20	45 00	43 40	42 20	41 00	39 40	4	30
4	40	69 37	68 30	67 22	66 13	65 04	63 54	62 44	61 32	60 20	59 07	57 54	56 40	55 26	54 12	52 58	51 44	50 30	49 16	48 00	46 40	45 20	44 00	42 40	41 20	40 00	38 40	4	40
4	50	68 32	67 26	66 20	65 14	64 07	62 59	61 51	60 41	59 31	58 21	57 09	55 58	54 46	53 34	52 22	51 10	50 00	48 40	47 20	46 00	44 40	43 20	42 00	40 40	39 20	38 00	4	50
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5	10	66 18	65 17	64 15	63 12	62 09	61 04	60 01	58 55	57 49	56 43	55 36	54 28	53 20	52 12	51 04	50 00	48 40	47 20	46 00	44 40	43 20	42 00	40 40	39 20	38 00	36 40	5	10
5	20	65 11	64 12	63 11	62 10	61 09	60 06	59 03	58 00	56 56	55 51	54 46	53 40	52 34	51 28	50 22	49 16	48 10	47 04	45 58	44 52	43 46	42 40	41 34	40 28	39 22	38 16	5	20
5	30	64 03	63 05	62 06	61 06	60 07	59 06	58 05	57 03	56 01	54 59	53 54	52 50	51 44	50 38	49 32	48 26	47 20	46 14	45 08	44 02	42 56	41 50	40 44	39 38	38 32	37 26	5	30
5	40	62 54	61 57	61 00	60 02	59 04	58 05	57 05	56 05	55 04	54 03	53 01	52 00	50 58	49 56	48 54	47 52	46 50	45 48	44 46	43 44	42 42	41 40	40 38	39 36	38 34	37 32	5	40
5	50	61 44	60 48	59 53	58 56	57 59	57 01	56 04	55 05																				

AZIMUTH OR TRUE BEARING.

LATITUDE 39°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 39°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	10 32	9 21	8 20	7 31	6 48	6 11	5 39	5 11	4 46	4 24	4 03	3 46		10
	20	20 15	18 04	16 14	14 40	13 20	12 10	11 08	10 14	9 25	8 42	8 03	7 27		20
	30	28 38	25 48	23 21	21 15	19 23	17 46	16 19	15 02	13 53	12 51	11 54	11 01		30
	40	35 32	32 20	29 32	27 03	24 51	22 53	21 06	19 30	18 04	16 45	15 33	14 27		40
	50	41 03	37 45	34 56	32 05	29 38	27 27	25 26	23 36	21 56	20 23	18 59	17 41		50
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	10	48 51	45 40	42 41	39 55	37 19	34 54	32 38	30 32	28 35	26 46	25 03	23 27		10
	20	51 33	48 29	45 36	42 53	40 18	37 52	35 34	33 25	31 23	29 28	27 40	25 58		20
	30	53 39	50 46	47 59	45 20	42 48	40 24	38 05	35 55	33 51	31 53	30 02	28 15		30
	40	55 18	52 34	49 55	47 21	44 53	42 31	40 15	38 04	36 00	34 01	32 08	30 19		40
	50	56 34	53 59	51 27	49 00	46 36	44 19	42 05	39 56	37 52	35 52	33 58	32 08		50
2	00	57 32	55 05	52 41	50 20	48 02	45 48	43 37	41 31	39 28	37 30	35 36	33 45	2	00
	10	58 16	55 57	53 39	51 24	49 12	47 01	44 55	42 51	40 52	38 54	37 00	35 10		10
	20	58 47	56 35	54 24	52 15	50 08	48 03	46 00	43 59	42 01	40 06	38 14	36 24		20
	30	59 09	57 03	54 57	52 54	50 51	48 51	46 52	44 55	43 00	41 07	39 17	37 28		30
	40	59 21	57 20	55 21	53 23	51 25	49 29	47 34	45 40	43 48	41 58	40 10	38 23		40
	50	59 25	57 32	55 37	53 44	51 51	49 59	48 07	46 17	44 28	42 40	40 55	39 09		50
3	00	59 24	57 35	55 46	53 57	52 09	50 20	48 32	46 46	45 00	43 15	41 31	39 48	3	00
	10	59 18	57 33	55 48	54 04	52 19	50 35	48 50	47 07	45 24	43 42	42 00	40 20		10
	20	59 06	57 25	55 44	54 04	52 24	50 43	49 02	47 22	45 42	44 03	42 24	40 45		20
	30	58 50	57 13	55 36	54 00	52 22	50 45	49 08	47 31	45 54	44 16	42 40	41 04		30
	40	58 30	56 57	55 23	53 50	52 17	50 43	49 08	47 34	45 59	44 25	42 52	41 18		40
	50	58 06	56 37	55 06	53 36	52 06	50 35	49 04	47 33	46 01	44 29	42 58	41 27		50
4	00	57 39	56 13	54 47	53 19	51 51	50 24	48 55	47 27	45 58	44 28	43 00	41 30	4	00
	10	57 09	55 47	54 23	52 59	51 34	50 08	48 42	47 17	45 51	44 23	42 56	41 30		10
	20	56 37	55 17	53 55	52 34	51 12	49 49	48 26	47 02	45 39	44 15	42 50	41 25		20
	30	56 02	54 44	53 26	52 07	50 48	49 27	48 06	46 45	45 23	44 01	42 39	41 16		30
	40	55 25	54 09	52 53	51 37	50 20	49 02	47 44	46 25	45 06	43 45	42 25	41 04		40
	50	54 46	53 33	52 19	51 04	49 50	48 34	47 17	46 01	44 44	43 26	42 07	40 49		50
5	00	54 04	52 53	51 41	50 29	49 16	48 02	46 48	45 34	44 19	43 03	41 47	40 31	5	00
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	20	52 34	51 27	50 19	49 12	48 02	46 53	45 43	44 33	43 22	42 10	40 58	39 45		20
	30	51 46	50 41	49 35	48 29	47 23	46 15	45 07	43 59	42 50	41 40	40 29	39 18		30
	40	50 57	49 53	48 49	47 45	46 40	45 34	44 28	43 22	42 14	41 06	39 58	38 48		40
	50	50 05	49 03	48 01	46 59	45 55	44 52	43 48	42 43	41 38	40 31	39 24	38 16		50
6	00	49 13	48 12	47 12	46 11	45 10	44 07	43 05	42 01	40 57	39 53	38 48	37 42	6	00
	10	48 17	47 18	46 20	45 21	44 21	43 20	42 19	41 18	40 15	39 13	38 09	37 06		10
	20	47 20	46 24	45 27	44 29	43 31	42 32	41 32	40 32	39 33	38 32	37 30	36 28		20
	30	46 22	45 26	44 31	43 35	42 38	41 41	40 43	39 45	38 46	37 47	36 48	35 47		30
	40	45 22	44 28	43 34	42 39	41 44	40 49	39 53	38 56	37 59	37 01	36 03	35 05		40
	50	44 20	43 28	42 35	41 42	40 49	39 54	39 00	38 05	37 09	36 13	35 17	34 20		50
7	00	43 16	42 25	41 34	40 43	39 51	38 58	38 05	37 12	36 18	35 24	34 29	33 33	7	00
	10	42 11	41 21	40 31	39 42	38 51	38 00	37 09	36 17	35 24	34 31	33 38	32 45		10
	20	41 04	40 16	39 27	38 38	37 50	37 01	36 11	35 21	34 29	33 38	32 46	31 55		20
	30	39 56	39 09	38 22	37 35	36 47	35 59	35 11	34 22	33 33	32 43	31 54	31 03		30
	40	38 46	38 00	37 15	36 29	35 42	34 56	34 10	33 23	32 35	31 47	30 59	30 10		40
	50	37 34	36 50	36 05	35 21	34 37	33 52	33 07	32 21	31 35	30 48	30 02	29 15		50
8	00	36 20	35 37	34 55	34 11	33 29	32 45	32 01	31 18	30 33	29 49	29 03	28 19	8	00
	10	35 04	34 23	33 42	33 01	32 20	31 38	30 56	30 14	29 30	28 47	28 04	27 20		10
	20	33 47	33 07	32 28	31 49	31 09	30 28	29 48	29 07	28 26	27 45	27 03	26 20		20
	30	32 29	31 51	31 12	30 35	29 57	29 17	28 38	27 59	27 20	26 39	26 00	25 20		30
	40	31 09	30 32	29 56	29 19	28 43	28 05	27 28	26 50	26 12	25 34	24 56	24 17		40
	50	29 48	29 12	28 37	28 02	27 27	26 51	26 15	25 39	25 03	24 27	23 50	23 13		50
9	00	28 24	27 50	27 17	26 43	26 09	25 36	25 02	24 27	23 53	23 18	22 43	22 08	9	00
	10	26 59	26 27	25 54	25 23	24 51	24 19	23 46	23 14	22 41	22 08	21 35	21 01		10
	20	25 33	25 03	24 32	24 02	23 31	23 01	22 30	21 59	21 29	20 57	20 25	19 54		20
	30	24 05	23 36	23 07	22 39	22 11	21 42	21 12	20 43	20 14	19 45	19 15	18 46		30
	40	22 36	22 09	21 41	21 15	20 48	20 21	19 54	19 26	18 59	18 31	18 04	17 36		40
	50	21 05	20 40	20 14	19 49	19 24	18 58	18 33	18 08	17 42	17 16	16 51	16 24		50
10	00	19 33	19 09	18 46	18 23	17 59	17 35	17 12	16 49	16 25	16 01	15 37	15 13	10	00
	10	18 00	17 38	17 17	16 55	16 33	16 12	15 50	15 28	15 06	14 45	14 22	14 00		10
	20	16 26	16 06	15 47	15 26	15 07	14 48	14 28	14 08	13 47	13 27	13 06	12 46		20
	30	14 50	14 32	14 14	13 57	13 39	13 21	13 03	12 46	12 27	12 09	11 51	11 32		30
	40	13 14	12 58	12 42	12 26	12 10	11 54	11 38	11 22	11 05	10 49	10 33	10 17		40
	50	11 37	11 22	11 09	10 55	10 41	10 26	10 13	9 59	9 44	9 30	9 15	9 01		50
11	00	9 59	9 46	9 34	9 22	9 11	8 59	8 46	8 35	8 22	8 09	7 57	7 45	11	00
	10	8 20	8 09	7 59	7 49	7 40	7 30	7 20	7 09	6 58	6 49	6 38	6 28		10
	20	6 41	6 33	6 24	6 17	6 09	6 00	5 52	5 44	5 36	5 28	5 19	5 11		20
	30	5 01	4 54	4 49	4 43	4 37	4 30	4 24	4 18	4 12	4 06	4 00	3 53		30
	40	3 21	3 17	3 13	3 09	3 05	3 01	2 57	2 52	2 48	2 44	2 40	2 36		40
	50	1 41	1 39	1 37	1 34	1 32	1 30	1 29	1 27	1 25	1 22	1 20	1 18		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 39°.				DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 39°.			
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.				
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.			
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00			
	10	3 29	3 13	3 00	2 47	2 35	2 24	2 14	2 04	1 56	1 47	1 40		10			
	20	6 55	6 25	5 58	5 33	5 09	4 48	4 28	4 09	3 50	3 34	3 18					

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 40°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 40°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.			
h.	m.	°	°	°	°	°	°	°	°	°	°	°	°	h.	m.		
		00	00	00	00	00	00	00	00	00	00	00	00				
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00		
0	10	171 46	171 17	170 47	170 10	169 29	168 39	167 41	166 30	165 04	163 13	160 50	157 35	0	10		
0	20	163 46	162 54	161 55	160 47	159 30	158 00	156 15	154 10	151 41	148 37	144 50	140 02	0	20		
0	30	156 14	155 01	153 39	152 09	150 25	148 28	146 12	143 36	140 33	136 58	132 44	127 43	0	30		
0	40	149 15	147 48	146 19	144 25	142 25	140 12	137 41	134 51	131 38	127 58	123 49	119 06	0	40		
0	50	142 56	141 19	139 34	137 37	135 30	133 09	130 33	127 42	124 31	121 00	117 07	112 50	0	50		
1	00	137 14	135 32	133 42	131 42	129 32	127 11	124 37	121 49	118 47	115 30	111 56	108 05	1	00		
1	10	132 08	130 23	128 31	126 32	124 22	122 04	119 35	116 56	114 04	111 02	107 46	104 18	1	10		
1	20	127 34	125 50	123 59	122 00	119 54	117 41	115 18	112 47	110 07	107 18	104 19	101 11	1	20		
1	30	123 27	121 44	119 55	118 01	115 59	113 52	111 36	109 14	106 45	104 08	101 24	98 32	1	30		
1	40	119 45	118 04	116 19	114 28	112 31	110 30	108 21	106 07	103 48	101 22	98 51	96 14	1	40		
1	50	116 23	114 45	113 03	111 17	109 25	107 29	105 29	103 23	101 13	98 57	96 37	94 11	1	50		
2	00	113 19	111 45	110 06	108 24	106 38	104 48	102 53	100 55	98 52	96 45	94 35	92 20	2	00		
2	10	110 31	108 59	107 25	105 47	104 04	102 20	100 31	98 39	96 44	94 45	92 42	90 37	2	10		
2	20	107 55	106 27	104 57	103 22	101 45	100 05	98 21	96 36	94 44	92 55	90 59	89 02	2	20		
2	30	105 30	104 06	102 37	101 07	99 34	97 59	96 21	94 40	92 56	91 11	89 22	87 31	2	30		
2	40	103 15	101 53	100 28	99 01	97 32	96 01	94 28	92 52	91 14	89 33	87 50	86 05	2	40		
2	50	101 08	99 48	98 27	97 04	95 38	94 11	92 41	91 09	89 36	88 00	86 23	84 43	2	50		
3	00	99 07	97 50	96 32	95 12	93 49	92 25	90 59	89 32	88 03	86 31	84 55	83 24	3	00		
3	10	97 12	95 58	94 42	93 25	92 05	90 43	89 22	87 58	86 33	85 06	83 37	82 07	3	10		
3	20	95 22	94 11	92 57	91 43	90 26	89 08	87 49	86 28	85 05	83 43	82 18	80 51	3	20		
3	30	93 37	92 28	91 17	90 04	88 50	87 36	86 19	85 01	83 43	82 22	81 01	79 39	3	30		
3	40	91 56	90 48	89 40	88 30	87 18	86 06	84 52	83 37	82 21	81 04	79 46	78 26	3	40		
3	50	90 17	89 12	88 06	86 57	85 47	84 38	83 27	82 15	81 01	79 47	78 31	77 14	3	50		
4	00	88 42	87 35	86 33	85 27	84 20	83 12	82 04	80 54	79 43	78 31	77 18	76 03	4	00		
4	10	87 09	86 06	85 33	84 33	83 59	82 53	81 48	80 41	79 33	78 24	77 05	75 54	4	10		
4	20	85 38	84 36	83 38	82 33	81 29	80 25	79 20	78 14	77 07	76 01	74 52	73 43	4	20		
4	30	84 08	83 08	82 08	81 07	80 05	79 03	78 00	76 56	75 52	74 46	73 40	72 33	4	30		
4	40	82 40	81 41	80 42	79 43	78 43	77 43	76 40	75 39	74 36	73 32	72 28	71 23	4	40		
4	50	81 12	80 15	79 18	78 19	77 21	76 22	75 22	74 21	73 20	72 19	71 16	70 13	4	50		
5	00	79 45	78 49	77 53	76 57	76 00	75 02	74 04	73 04	72 05	71 05	70 04	69 03	5	00		
5	10	78 19	77 25	76 30	75 34	74 39	73 42	72 45	71 48	70 49	69 50	68 51	67 51	5	10		
5	20	76 53	76 00	75 07	74 11	73 17	72 22	71 27	70 30	69 33	68 36	67 38	66 40	5	20		
5	30	75 28	74 36	73 43	72 49	71 56	71 02	70 07	69 12	68 17	67 21	66 24	65 28	5	30		
5	40	74 02	73 10	72 19	71 27	70 34	69 42	68 48	67 54	67 00	66 06	65 10	64 15	5	40		
5	50	72 37	71 46	70 56	70 04	69 13	68 22	67 29	66 36	65 44	64 50	63 56	63 02	5	50		
6	00	71 10	70 21	69 31	68 41	67 50	67 00	66 08	65 17	64 25	63 33	62 40	61 48	6	00		
6	10	69 44	68 55	68 06	67 16	66 27	65 37	64 47	63 57	63 06	62 15	61 23	60 32	6	10		
6	20	68 16	67 28	66 40	65 53	65 03	64 15	63 25	62 37	61 47	60 57	60 06	59 15	6	20		
6	30	66 48	66 01	65 14	64 26	63 39	62 51	62 03	61 14	60 25	59 37	58 47	57 59	6	30		
6	40	65 19	64 33	63 46	63 00	62 12	61 25	60 38	59 51	59 03	58 16	57 28	56 39	6	40		
6	50	63 50	63 04	62 18	61 32	60 46	60 00	59 14	58 27	57 41	56 54	56 07	55 20	6	50		
7	00	62 18	61 33	60 48	60 03	59 17	58 33	57 47	57 02	56 16	55 30	54 44	53 58	7	00		
7	10	60 45	60 00	59 16	58 32	57 48	57 03	56 19	55 34	54 50	54 05	53 20	52 34	7	10		
7	20	59 10	58 27	57 44	57 00	56 17	55 33	54 50	54 06	53 22	52 39	51 55	51 10	7	20		
7	30	57 35	56 52	56 10	55 27	54 44	54 02	53 19	52 36	51 54	51 10	50 27	49 44	7	30		
7	40	55 57	55 15	54 33	53 52	53 10	52 28	51 47	51 05	50 23	49 41	48 58	48 17	7	40		
7	50	54 17	53 36	52 55	52 15	51 33	50 53	50 12	49 31	48 51	48 09	47 29	46 48	7	50		
8	00	52 34	51 55	51 15	50 35	49 55	49 15	48 35	47 56	47 16	46 36	45 56	45 16	8	00		
8	10	50 52	50 12	49 33	48 53	48 15	47 36	46 57	46 19	45 39	44 59	44 23	43 44	8	10		
8	20	49 06	48 27	47 50	47 11	46 33	45 55	45 17	44 39	44 02	43 24	42 46	42 09	8	20		
8	30	47 18	46 40	46 03	45 26	44 48	44 12	43 35	42 58	42 22	41 46	41 09	40 32	8	30		
8	40	45 27	44 51	44 15	43 38	43 02	42 26	41 50	41 15	40 39	40 05	39 29	38 54	8	40		
8	50	43 34	42 59	42 24	41 48	41 14	40 39	40 04	39 30	38 55	38 22	37 47	37 13	8	50		
9	00	41 38	41 04	40 30	39 56	39 22	38 48	38 15	37 42	37 09	36 36	36 03	35 31	9	00		
9	10	39 40	39 07	38 34	38 01	37 28	36 56	36 24	35 53	35 20	34 50	34 18	33 46	9	10		
9	20	37 39	37 06	36 36	36 05	35 34	35 02	34 31	34 01	33 30	33 00	32 30	32 00	9	20		
9	30	35 34	35 04	34 34	34 04	33 34	33 05	32 35	32 06	31 36	31 06	30 36	30 06	9	30		
9	40	33 29	33 00	32 30	32 02	31 34	31 05	30 37	30 09	29 42	29 15	28 48	28 22	9	40		
9	50	31 19	30 52	30 25	29 57	29 31	29 03	28 38	28 12	27 45	27 20	26 55	26 29	9	50		
10	00	29 07	28 42	28 16	27 50	27 25	27 00	26 35	26 11	25 46	25 23	24 59	24 36	10	00		
10	10	26 52	26 28	26 04	25 40	25 17	24 54	24 30	24 08	23 46	23 23	23 01	22 39	10	10		
10	20	24 36	24 13	23 51	23 28	23 07	22 46	22 25	22 03	21 43	21 22	21 02	20 42	10	20		
10	30	22 16	21 56	21 35	21 15	20 55	20 36	20 16	19 57	19 38	19 20	19 01	18 43	10	30		
10	40	19 54	19 35	19 17	18 59	18 41	18 23	18 06	17 49	17 32	17 15	16 58	16 41	10	40		
10	50	17 30	17 13	16 57	16 41	16 25	16 10	15 54	15 39	15 24	15 09	14 55	14 40	10	50		
11	00	15 03	14 49	14 36	14 21	14 08	13 55	13 41	13 28	13 15	13 02	12 50	12 37	11	00		
11	10	12 36	12 24	12 12	12 00	11 48	11 38	11 26	11 15	11 04	10 54	10 43	10 32	11	10		
11	20	10 06	9 57	9 48	9 38	9 29	9 20	9 11	9 02	8 53	8 44	8 36	8 27	11	20		
11	30	7 36	7 29	7 22	7 15	7 07	7 00	6 54	6 47	6 40	6 33	6 27	6 21	11	30		
11	40	5 05	4 59	4 55	4 50	4 45	4 40	4 36	4 32	4 27	4 22	4 19	4 14	11	40		
11	50	2 32	2 30	2 27	2 25	2 22	2 20	2 18	2 16	2 14	2 12	2 09	2 07	11	50		

AZIMUTH OR TRUE BEARING.

LATITUDE 40°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 40°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.
0	00	180 00	180 00	180 00	180 00	.....	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	153 00	146 06	135 02	116 36	89 12	61 27	42 31	31 09	24 06	19 24	16 06	13 40		10
	20	133 53	125 54	115 39	102 56	88 24	73 39	60 27	49 41	41 15	34 44	29 41	25 42		20
	30	121 44	114 42	106 33	97 24	87 35	77 38	68 06	59 27	51 52	45 23	39 55	35 20		30
	40	113 46	107 48	101 15	94 11	86 47	79 17	71 55	64 55	58 26	52 33	47 18	42 40		40
	50	108 09	103 05	97 38	91 55	85 58	79 57	73 58	68 09	62 30	57 23	52 33	48 09		50
1	00	103 58	99 34	94 57	90 08	85 10	80 08	75 06	70 09	65 20	60 43	56 20	52 14	1	00
	10	100 38	96 48	92 46	88 36	84 21	80 02	75 41	71 23	67 03	63 01	59 04	55 16		10
	20	97 54	94 29	90 56	87 16	83 32	79 45	75 56	72 07	68 21	64 39	61 03	57 33		20
	30	95 34	92 29	89 18	86 02	82 43	79 20	75 56	72 31	69 08	65 46	62 29	59 15		30
	40	93 31	90 43	87 50	84 53	81 53	78 50	75 46	72 41	69 36	66 31	63 30	60 31		40
	50	91 42	89 07	86 30	83 48	81 04	78 17	75 29	72 43	69 50	67 00	64 13	61 27		50
2	00	90 01	87 39	85 13	82 45	80 13	77 41	75 06	72 30	69 54	67 17	64 41	62 06	2	00
	10	88 27	86 16	84 00	81 43	79 23	77 02	74 38	72 14	69 48	67 22	64 56	62 32		10
	20	87 01	84 57	82 51	80 43	78 33	76 21	74 07	71 52	69 37	67 21	65 04	62 47		20
	30	85 37	83 42	81 43	79 43	77 41	75 38	73 33	71 26	69 19	67 11	65 03	62 55		30
	40	84 18	82 29	80 38	78 45	76 50	74 54	72 56	70 57	68 57	66 56	64 55	62 54		40
	50	83 02	81 18	79 33	77 46	75 58	74 09	72 17	70 25	68 31	66 37	64 42	62 46		50
3	00	81 47	80 09	78 29	76 48	75 05	73 22	71 36	69 50	68 02	66 14	64 24	62 35	3	00
	10	80 35	79 02	77 26	75 50	74 12	72 33	70 53	69 12	67 30	65 47	64 02	62 17		10
	20	79 24	77 55	76 23	74 52	73 19	71 44	70 09	68 32	66 55	65 16	63 37	61 56		20
	30	78 14	76 49	75 21	73 54	72 25	70 55	69 23	67 51	66 18	64 43	63 08	61 32		30
	40	77 05	75 43	74 19	72 56	71 30	70 03	68 35	67 08	65 38	64 07	62 36	61 04		40
	50	75 57	74 37	73 18	71 57	70 34	69 11	67 47	66 22	64 56	63 30	62 02	60 34		50
4	00	74 48	73 33	72 16	70 57	69 38	68 19	66 58	65 36	64 13	62 49	61 25	60 00	4	00
	10	73 40	72 27	71 13	69 58	68 41	67 25	66 06	64 47	63 28	62 07	60 45	59 23		10
	20	72 33	71 22	70 10	68 57	67 44	66 29	65 14	63 58	62 41	61 24	60 04	58 45		20
	30	71 26	70 17	69 07	67 56	66 45	65 34	64 21	63 07	61 53	60 37	59 21	58 05		30
	40	70 17	69 11	68 03	66 56	65 46	64 37	63 27	62 15	61 03	59 50	58 37	57 23		40
	50	69 09	68 05	66 59	65 53	64 46	63 38	62 31	61 21	60 11	59 01	57 49	56 38		50
5	00	68 00	66 58	65 54	64 50	63 45	62 40	61 33	60 26	59 18	58 09	57 00	55 51	5	00
	10	66 51	65 50	64 48	63 45	62 43	61 39	60 35	59 29	58 24	57 18	56 10	55 03		10
	20	65 41	64 42	63 41	62 41	61 40	60 36	59 35	58 32	57 28	56 24	55 18	54 13		20
	30	64 30	63 33	62 34	61 35	60 35	59 35	58 34	57 33	56 31	55 28	54 25	53 21		30
	40	63 19	62 22	61 25	60 28	59 30	58 32	57 32	56 32	55 32	54 31	53 29	52 27		40
	50	62 07	61 12	60 17	59 21	58 24	57 27	56 29	55 31	54 32	53 33	52 33	51 33		50
6	00	60 54	60 01	59 06	58 11	57 16	56 21	55 25	54 28	53 31	52 33	51 34	50 36	6	00
	10	59 40	58 47	57 54	57 01	56 07	55 13	54 18	53 23	52 28	51 31	50 35	49 38		10
	20	58 24	57 33	56 42	55 50	54 57	54 05	53 11	52 18	51 23	50 29	49 33	48 37		20
	30	57 09	56 19	55 28	54 37	53 46	52 54	52 02	51 10	50 17	49 24	48 30	47 36		30
	40	55 51	55 01	54 12	53 23	52 33	51 43	50 52	50 01	49 10	48 17	47 25	46 33		40
	50	54 32	53 44	52 56	52 07	51 18	50 29	49 40	48 51	48 01	47 10	46 19	45 28		50
7	00	53 12	52 25	51 37	50 51	50 03	49 16	48 27	47 39	46 50	46 01	45 11	44 21	7	00
	10	51 50	51 04	50 18	49 32	48 45	47 59	47 12	46 25	45 38	44 50	44 02	43 13		10
	20	50 26	49 42	48 57	48 12	47 27	46 41	45 56	45 10	44 24	43 38	42 51	42 04		20
	30	49 02	48 18	47 34	46 51	46 07	45 23	44 38	43 54	43 08	42 23	41 38	40 53		30
	40	47 35	46 53	46 10	45 28	44 45	44 02	43 18	42 35	41 52	41 08	40 24	39 40		40
	50	46 06	45 26	44 44	44 03	43 21	42 40	41 58	41 16	40 33	39 51	39 08	38 26		50
8	00	44 36	43 56	43 16	42 36	41 56	41 15	40 35	39 54	39 13	38 32	37 50	37 09	8	00
	10	43 05	42 26	41 46	41 08	40 29	39 50	39 10	38 31	37 51	37 11	36 32	35 51		10
	20	41 31	40 54	40 15	39 38	39 00	38 22	37 45	37 07	36 28	35 49	35 11	34 33		20
	30	39 56	39 20	38 43	38 06	37 30	36 54	36 17	35 40	35 02	34 26	33 49	33 11		30
	40	38 19	37 44	37 08	36 33	35 58	35 23	34 47	34 12	33 36	33 00	32 25	31 49		40
	50	36 39	36 06	35 31	34 58	34 24	33 49	33 16	32 42	32 08	31 34	31 00	30 26		50
9	00	34 58	34 26	33 53	33 20	32 48	32 16	31 43	31 10	30 37	30 05	29 32	28 59	9	00
	10	33 15	32 45	32 12	31 41	31 10	30 38	30 05	29 37	29 06	28 35	28 03	27 33		10
	20	31 30	31 01	30 30	30 01	29 31	29 02	28 32	28 02	27 33	27 04	26 33	26 05		20
	30	29 43	29 15	28 46	28 18	27 50	27 23	26 54	26 26	25 58	25 30	25 02	24 35		30
	40	27 54	27 27	27 00	26 34	26 08	25 42	25 15	24 48	24 22	23 56	23 29	23 03		40
	50	26 03	25 38	25 13	24 48	24 23	23 59	23 34	23 09	22 44	22 20	21 55	21 31		50
10	00	24 12	23 48	23 25	23 01	22 38	22 15	21 52	21 29	21 06	20 42	20 19	19 56	10	00
	10	22 17	21 55	21 33	21 12	20 50	20 29	20 08	19 47	19 24	19 03	18 43	18 21		10
	20	20 22	20 02	19 41	19 22	19 02	18 42	18 22	18 02	17 43	17 24	17 04	16 45		20
	30	18 24	18 06	17 47	17 30	17 12	16 54	16 36	16 18	16 01	15 44	15 25	15 08		30
	40	16 25	16 09	15 53	15 37	15 20	15 04	14 48	14 33	14 17	14 01	13 46	13 30		40
	50	14 25	14 11	13 56	13 42	13 28	13 14	13 00	12 45	12 32	12 18	12 04	11 50		50
11	00	12 24	12 11	11 59	11 47	11 35	11 23	11 11	10 58	10 46	10 34	10 23	10 10	11	00
	10	10 21	10 12	10 00	9 50	9 40	9 30	9 20	9 10	8 59	8 50	8 40	8 29		10
	20	8 18	8 10	8 02	7 53	7 45	7 37	7 29	7 20	7 13	7 04	6 56	6 49		20
	30	6 14	6 09	6 02	5 56	5 49	5 43	5 37	5 31	5 24	5 19	5 13	5 07		30
	40	4 10	4 06	4 01	3 58	3 53	3 49	3 44	3 41	3 37	3 33	3 28	3 24		40
	50														

AZIMUTH OR TRUE BEARING.

LATITUDE 40°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 40°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	°	'	°	'	°	'	°	'	°	'	°	'	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	11 49	10 20	9 09	8 10	7 21	6 38	6 03	5 31	5 03	4 38	4 17	3 57		10
	20	22 30	19 53	17 43	15 55	14 23	13 02	11 54	10 52	9 58	9 11	8 28	7 49		20
	30	31 26	28 09	25 20	22 55	20 49	19 00	17 23	15 57	14 40	13 32	12 30	11 34		30
	40	38 35	34 59	31 49	29 02	26 34	24 22	22 24	20 39	19 04	17 38	16 19	15 08		40
	50	44 07	40 28	37 10	34 12	31 31	29 06	26 53	24 54	23 04	21 24	19 53	18 29		50
1	00	48 24	44 50	41 33	38 32	35 45	33 11	30 51	28 41	26 41	24 51	23 09	21 35	1	00
	10	51 41	48 16	45 05	42 05	39 18	36 41	34 16	32 01	29 55	27 58	26 08	24 26		10
	20	54 12	50 58	47 55	45 00	42 16	39 39	37 13	34 55	32 45	30 44	28 49	27 01		20
	30	56 08	53 06	50 11	47 23	44 43	42 09	39 44	37 25	35 14	33 10	31 11	29 20		30
	40	57 36	54 45	51 59	49 18	46 43	44 14	41 51	39 34	37 23	35 18	33 18	31 24		40
	50	58 43	56 02	53 25	50 51	48 23	45 57	43 39	41 23	39 14	37 09	35 09	33 14		50
2	00	59 33	57 01	54 32	52 06	49 43	47 24	45 08	42 57	40 49	38 46	36 46	34 51	2	00
	10	60 07	57 45	55 24	53 04	50 48	48 33	46 22	44 14	42 09	40 07	38 10	36 15		10
	20	60 31	58 16	56 02	53 49	51 38	49 29	47 22	45 18	43 16	41 17	39 21	37 28		20
	30	60 46	58 38	56 30	54 24	52 18	50 14	48 12	46 11	44 12	42 17	40 22	38 31		30
	40	60 51	58 50	56 48	54 48	52 48	50 48	48 50	46 53	44 58	43 05	41 13	39 25		40
	50	60 51	58 55	56 59	55 04	53 08	51 13	49 20	47 27	45 35	43 45	41 56	40 09		50
3	00	60 44	58 54	57 03	55 12	53 21	51 31	49 42	47 53	46 04	44 17	42 30	40 45	3	00
	10	60 32	58 47	57 00	55 14	53 27	51 41	49 56	48 11	46 26	44 41	42 58	41 15		10
	20	60 15	58 36	56 53	55 10	53 28	51 46	50 04	48 23	46 41	44 59	43 18	41 39		20
	30	59 56	58 19	56 40	55 02	53 24	51 45	50 07	48 28	46 49	45 11	43 33	41 55		30
	40	59 31	57 58	56 24	54 50	53 15	51 39	50 04	48 28	46 53	45 17	43 41	42 07		40
	50	59 04	57 34	56 03	54 32	53 01	51 29	49 57	48 24	46 51	45 19	43 46	42 13		50
4	00	58 33	57 07	55 40	54 12	52 44	51 15	49 46	48 16	46 46	45 15	43 45	42 15	4	00
	10	58 00	56 38	55 13	53 48	52 23	50 57	49 31	48 03	46 36	45 08	43 40	42 13		10
	20	57 25	56 04	54 43	53 21	51 58	50 34	49 11	47 47	46 22	44 57	43 32	42 06		20
	30	56 48	55 29	54 10	52 51	51 31	50 10	48 49	47 27	46 04	44 41	43 19	41 56		30
	40	56 07	54 51	53 35	52 18	51 00	49 42	48 24	47 04	45 44	44 24	43 03	41 41		40
	50	55 25	54 12	52 57	51 43	50 28	49 11	47 55	46 38	45 21	44 02	42 43	41 24		50
5	00	54 41	53 29	52 17	51 06	49 52	48 38	47 24	46 10	44 54	43 37	42 21	41 04	5	00
	10	53 55	52 46	51 36	50 26	49 15	48 03	46 51	45 38	44 24	43 10	41 56	40 41		10
	20	53 06	52 00	50 52	49 44	48 34	47 25	46 16	45 05	43 53	42 41	41 28	40 15		20
	30	52 16	51 11	50 06	49 06	48 59	47 52	46 45	45 37	44 29	43 18	42 08	40 57		30
	40	51 25	50 21	49 17	48 14	47 08	46 03	44 56	43 50	42 42	41 33	40 25	39 16		40
	50	50 32	49 31	48 28	47 25	46 22	45 18	44 15	43 09	42 03	40 57	39 50	38 43		50
6	00	49 37	48 36	47 36	46 36	45 34	44 32	43 29	42 26	41 22	40 18	39 12	38 06	6	00
	10	48 40	47 41	46 42	45 44	44 43	43 43	42 43	41 41	40 38	39 36	38 33	37 29		10
	20	47 41	46 45	45 47	44 50	43 52	42 53	41 54	40 55	39 53	38 53	37 51	36 49		20
	30	46 41	45 46	44 51	43 55	42 58	42 01	41 04	40 05	39 07	38 07	37 07	36 07		30
	40	45 39	44 46	43 52	42 57	42 02	41 07	40 11	39 15	38 18	37 20	36 21	35 23		40
	50	44 36	43 44	42 51	41 59	41 05	40 11	39 17	38 22	37 26	36 31	35 34	34 37		50
7	00	43 31	42 41	41 50	40 59	40 06	39 13	38 22	37 28	36 34	35 40	34 45	33 50	7	00
	10	42 24	41 35	40 45	39 56	39 05	38 14	37 24	36 32	35 40	34 47	33 54	33 01		10
	20	41 17	40 29	39 40	38 52	38 03	37 14	36 25	35 35	34 44	33 52	33 01	32 10		20
	30	40 07	39 21	38 34	37 47	37 00	36 12	35 23	34 36	33 46	32 56	32 07	31 17		30
	40	38 55	38 10	37 25	36 39	35 54	35 07	34 21	33 34	32 47	31 59	31 11	30 22		40
	50	37 42	36 59	36 15	35 31	34 47	34 02	33 18	32 32	31 46	30 59	30 13	29 27		50
8	00	36 27	35 45	35 03	34 21	33 37	32 55	32 12	31 28	30 43	29 59	29 14	28 29	8	00
	10	35 11	34 31	33 51	33 10	32 28	31 46	31 04	30 22	29 39	28 57	28 14	27 30		10
	20	33 54	33 14	32 35	31 56	31 15	30 35	29 56	29 15	28 34	27 53	27 11	26 30		20
	30	32 34	31 57	31 18	30 41	30 02	29 24	28 46	28 06	27 28	26 47	26 08	25 27		30
	40	31 13	30 37	30 01	29 24	28 47	28 11	27 34	26 55	26 19	25 41	25 03	24 24		40
	50	29 51	29 17	28 42	28 06	27 32	26 57	26 21	25 45	25 09	24 33	23 57	23 20		50
9	00	28 26	27 53	27 21	26 47	26 14	25 40	25 07	24 33	23 59	23 23	22 49	22 14	9	00
	10	27 01	26 30	25 58	25 26	24 55	24 22	23 52	23 19	22 47	22 14	21 40	21 07		10
	20	25 35	25 04	24 35	24 05	23 35	23 04	22 35	22 04	21 33	21 01	20 30	20 00		20
	30	24 06	23 38	23 09	22 42	22 13	21 44	21 16	20 47	20 18	19 49	19 19	18 50		30
	40	22 36	22 10	21 43	21 17	20 50	20 23	19 57	19 30	19 02	18 35	18 07	17 40		40
	50	21 06	20 41	20 16	19 51	19 26	19 01	18 36	18 11	17 46	17 20	16 54	16 29		50
10	00	19 34	19 11	18 47	18 24	18 01	17 38	17 14	16 51	16 28	16 04	15 40	15 16	10	00
	10	18 01	17 38	17 17	16 56	16 35	16 14	15 52	15 31	15 09	14 47	14 25	14 03		10
	20	16 26	16 06	15 47	15 28	15 07	14 49	14 29	14 09	13 50	13 29	13 09	12 49		20
	30	14 50	14 33	14 15	13 58	13 39	13 22	13 05	12 47	12 29	12 11	11 52	11 34		30
	40	13 13	12 58	12 42	12 27	12 11	11 55	11 40	11 23	11 07	10 51	10 36	10 19		40
	50	11 37	11 23	11 09	10 55	10 41	10 27	10 13	10 00	9 45	9 31	9 17	9 03		50
11	00	9 58	9 46	9 34	9 23	9 11	8 59	8 47	8 35	8 23	8 11	7 58	7 46	11	00
	10	8 19	8 10	8 00	7 50	7 40	7 30	7 20	7 10	7 00	6 50	6 39	6 29		10
	20	6 41	6 33	6 25	6 17	6 09	6 01	5 52	5 45	5 36	5 28	5 20	5 13		20
	30	5 01	4 55	4 48	4 43	4 37	4 31	4 25	4 18	4 12	4 07	4 00	3 55		30
	40	3 20	3 16	3 12	3 08	3 04	3 00	2 57	2 53	2 49	2 45	2 40	2 35		40
	50	1 41	1 39	1 37	1 35	1 33	1 31	1 29	1 27	1 24	1 22	1 20	1 18		50
	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 40°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 40°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	3 39	3 22	3 08	2 54	2 42	2 30	2 19							

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 41°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 41°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.			
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.		
		00	00	00	00	00	00	00	00	00	00	00	00				
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00		
0	10	172 13	171 50	171 22	170 51	170 15	169 35	168 46	167 49	166 39	165 13	163 24	161 03	0	10		
0	20	164 39	163 53	163 01	162 02	160 56	159 39	158 11	156 27	154 24	151 56	148 54	145 08	0	20		
0	30	157 27	156 23	155 12	153 51	152 22	150 39	148 43	146 28	143 53	140 51	137 18	133 04	0	30		
0	40	150 45	149 27	148 01	146 25	144 39	142 40	140 28	137 58	135 08	131 56	128 17	124 07	0	40		
0	50	144 36	143 08	141 32	139 47	137 52	135 44	133 25	130 49	127 58	124 48	121 16	117 22	0	50		
1	00	139 00	137 27	135 45	133 55	131 56	129 45	127 24	124 51	122 04	119 01	115 43	112 09	1	00		
1	10	133 56	132 19	130 35	128 44	126 44	124 35	122 17	119 49	117 08	114 17	111 12	107 55	1	10		
1	20	129 22	127 44	126 00	124 09	122 11	120 05	117 52	115 29	112 58	110 17	107 27	104 26	1	20		
1	30	125 13	123 35	121 53	120 04	118 10	116 07	114 00	111 44	109 22	106 51	104 14	101 29	1	30		
1	40	121 28	119 52	118 11	116 26	114 35	112 38	110 36	108 28	106 13	103 53	101 26	98 54	1	40		
1	50	118 03	116 29	114 52	113 09	111 23	109 30	107 35	105 33	103 27	101 15	98 58	96 36	1	50		
2	00	114 54	113 23	111 48	110 10	108 27	106 41	104 50	102 55	100 56	98 52	96 44	94 32	2	00		
2	10	112 01	110 33	109 01	107 26	105 48	104 05	102 21	100 31	98 39	96 43	94 42	92 39	2	10		
2	20	109 21	107 56	106 27	104 56	103 22	101 44	100 04	98 20	96 33	94 43	92 50	90 54	2	20		
2	30	106 51	105 29	104 03	102 35	101 03	99 31	97 56	96 16	94 35	92 51	91 04	89 15	2	30		
2	40	104 32	103 12	101 49	100 24	98 58	97 28	95 56	94 22	92 45	91 07	89 25	87 41	2	40		
2	50	102 20	101 03	99 42	98 21	96 57	95 32	94 04	92 34	91 01	89 28	87 52	86 13	2	50		
3	00	100 15	99 00	97 43	96 24	95 04	93 41	92 17	90 51	89 22	87 53	86 21	84 48	3	00		
3	10	98 16	97 04	95 49	94 33	93 15	91 56	90 35	89 12	87 47	86 22	84 54	83 24	3	10		
3	20	96 23	95 12	94 00	92 47	91 32	90 15	88 57	87 37	86 16	84 54	83 30	82 05	3	20		
3	30	94 34	93 26	92 16	91 04	89 52	88 37	87 23	86 08	84 48	83 29	82 08	80 43	3	30		
3	40	92 49	91 42	90 34	89 25	88 15	87 03	85 51	84 36	83 22	82 06	80 47	79 28	3	40		
3	50	91 07	90 03	88 56	87 49	86 41	85 31	84 22	83 10	81 57	80 44	79 29	78 13	3	50		
4	00	89 28	88 25	87 21	86 16	85 10	84 03	82 55	81 45	80 36	79 24	78 12	76 59	4	00		
4	10	87 52	86 51	85 48	84 44	83 40	82 35	81 29	80 22	79 14	78 04	76 55	75 44	4	10		
4	20	86 18	85 18	84 16	83 15	82 12	81 09	80 05	79 00	77 54	76 47	75 39	74 30	4	20		
4	30	84 45	83 46	82 47	81 46	80 46	79 44	78 42	77 38	76 35	75 30	74 24	73 18	4	30		
4	40	83 13	82 16	81 18	80 19	79 21	78 21	77 20	76 18	75 16	74 13	73 09	72 04	4	40		
4	50	81 44	80 47	79 51	78 53	77 56	76 57	75 57	74 58	73 57	72 56	71 54	70 52	4	50		
5	00	80 14	79 19	78 24	77 28	76 31	75 34	74 36	73 37	72 39	71 39	70 39	69 38	5	00		
5	10	78 46	77 52	76 58	76 03	75 08	74 12	73 15	72 18	71 21	70 23	69 24	68 25	5	10		
5	20	77 18	76 25	75 32	74 38	73 44	72 50	71 54	70 59	70 02	69 06	68 08	67 11	5	20		
5	30	75 50	74 58	74 06	73 13	72 20	71 27	70 33	69 38	68 44	67 48	66 53	65 57	5	30		
5	40	74 22	73 31	72 40	71 49	70 57	70 04	69 11	68 18	67 25	66 31	65 36	64 41	5	40		
5	50	73 03	72 04	71 14	70 24	69 33	68 42	67 50	66 58	66 05	65 12	64 20	63 25	5	50		
6	00	71 25	70 38	69 48	68 58	68 08	67 18	66 27	65 36	64 45	63 54	63 01	62 09	6	00		
6	10	69 57	69 09	68 20	67 32	66 43	65 54	65 04	64 14	63 24	62 33	61 43	60 51	6	10		
6	20	68 27	67 41	66 53	66 05	65 18	64 29	63 40	62 51	62 03	61 13	60 24	59 33	6	20		
6	30	66 57	66 12	65 25	64 38	63 51	63 03	62 16	61 28	60 40	59 51	59 01	58 11	6	30		
6	40	65 27	64 42	63 55	63 09	62 23	61 37	60 49	60 03	59 16	58 29	57 41	56 53	6	40		
6	50	63 54	63 10	62 25	61 40	60 55	60 09	59 23	58 37	57 51	57 05	56 18	55 31	6	50		
7	00	62 22	61 37	60 53	60 09	59 25	58 40	57 55	57 10	56 25	55 39	54 55	54 08	7	00		
7	10	60 47	60 04	59 20	58 37	57 53	57 09	56 25	55 41	54 58	54 13	53 29	52 44	7	10		
7	20	59 12	58 29	57 46	57 04	56 21	55 37	54 55	54 12	53 29	52 45	52 02	51 18	7	20		
7	30	57 35	56 53	56 10	55 28	54 47	54 04	53 22	52 40	51 58	51 15	50 32	49 51	7	30		
7	40	55 55	55 14	54 33	53 52	53 11	52 30	51 48	51 08	50 26	49 44	49 03	48 22	7	40		
7	50	54 14	53 34	52 54	52 14	51 34	50 53	50 13	49 32	48 52	48 12	47 32	46 51	7	50		
8	00	52 31	51 51	51 13	50 33	49 54	49 15	48 35	47 55	47 16	46 37	45 59	45 19	8	00		
8	10	50 47	50 08	49 30	48 51	48 13	47 34	46 56	46 18	45 40	45 02	44 24	43 45	8	10		
8	20	49 00	48 22	47 45	47 06	46 29	45 52	45 15	44 38	44 01	43 23	42 47	42 10	8	20		
8	30	47 10	46 34	45 57	45 21	44 45	44 08	43 31	42 55	42 20	41 44	41 08	40 33	8	30		
8	40	45 19	44 44	44 07	43 32	42 57	42 21	41 47	41 12	40 37	40 02	39 27	38 52	8	40		
8	50	43 25	42 51	42 16	41 42	41 08	40 34	39 59	39 26	38 53	38 18	37 45	37 11	8	50		
9	00	41 28	40 55	40 22	39 48	39 15	38 42	38 10	37 37	37 05	36 32	36 01	35 29	9	00		
9	10	39 30	38 58	38 25	37 53	37 21	36 49	36 18	35 47	35 16	34 45	34 14	33 44	9	10		
9	20	37 28	36 57	36 27	35 56	35 26	34 55	34 24	33 53	33 25	32 55	32 26	31 57	9	20		
9	30	35 24	34 54	34 25	33 55	33 26	32 58	32 29	32 01	31 32	31 04	30 36	30 07	9	30		
9	40	33 18	32 50	32 22	31 53	31 25	30 58	30 31	30 04	29 37	29 10	28 43	28 17	9	40		
9	50	31 08	30 41	30 15	29 48	29 23	28 57	28 31	28 05	27 40	27 15	26 50	26 25	9	50		
10	00	28 56	28 32	28 06	27 41	27 17	26 52	26 28	26 05	25 41	25 17	24 54	24 31	10	00		
10	10	26 42	26 19	25 56	25 33	25 10	24 46	24 24	24 02	23 40	23 17	22 57	22 35	10	10		
10	20	24 26	24 03	23 42	23 21	23 00	22 39	22 18	21 58	21 37	21 18	20 58	20 38	10	20		
10	30	22 07	21 46	21 27	21 07	20 48	20 29	20 11	19 52	19 33	19 15	18 57	18 38	10	30		
10	40	19 45	19 28	19 10	18 52	18 34	18 17	18 00	17 43	17 27	17 10	16 55	16 38	10	40		
10	50	17 22	17 06	16 50	16 35	16 20	16 05	15 49	15 34	15 20	15 05	14 51	14 36	10	50		
11	00	14 56	14 43	14 29	14 15	14 02	13 49	13 36	13 24	13 11	12 58	12 46	12 33	11	00		
11	10	12 30	12 18	12 07	11 55	11 45	11 33	11 22	11 12	11 01	10 50	10 40	10 29	11	10		
11	20	10 02	9 52	9 43	9 34	9 25	9 16	9 07	8 58	8 50	8 41	8 33	8 25	11	20		

AZIMUTH OR TRUE BEARING.

LATITUDE 41°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 41°.		
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.		h. m.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.		
		0	0	0	0	0	0	0	0	0	0	0	0		0		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00	00	
	10	157 50	153 18	146 27	135 26	116 56	89 11	61 04	42 04	30 43	23 43	19 05	15 59	1	10	10	
	20	140 23	134 13	126 16	115 56	103 07	85 22	73 25	60 03	49 12	40 45	34 16	29 14		20	20	
	30	128 03	122 03	114 09	106 45	97 30	87 32	77 26	67 46	59 01	51 22	44 53	39 24		30	30	
	40	119 23	114 01	108 00	101 19	94 13	86 43	79 06	71 37	64 32	57 58	52 03	46 47		40	40	
	50	113 05	108 21	103 14	97 43	91 55	85 53	79 47	73 42	67 48	62 11	56 55	52 03		50	50	
1	00	108 16	104 06	99 40	94 59	90 06	85 04	79 58	74 51	69 49	64 56	60 16	55 59	1	00	00	
	10	104 25	100 44	96 50	92 46	88 33	84 14	79 51	75 26	71 02	66 46	62 37	58 35		10	10	
	20	101 17	97 57	94 29	90 54	87 11	83 24	79 33	75 41	71 49	67 59	64 14	60 35		20	20	
	30	98 35	95 35	92 28	89 15	85 56	82 34	79 08	75 40	72 14	68 47	65 23	62 02		30	30	
	40	96 15	93 30	90 40	87 45	84 46	81 43	78 38	75 31	72 23	69 15	66 08	63 04		40	40	
	50	94 10	91 38	89 03	86 23	83 39	80 53	78 03	75 13	72 22	69 29	66 37	63 46		50	50	
2	00	92 16	89 56	87 32	85 05	82 35	80 02	77 27	74 49	72 11	69 32	66 53	64 15	2	00	00	
	10	90 32	88 21	86 03	83 51	81 32	79 11	76 48	74 22	71 54	69 27	67 00	64 31		10	10	
	20	88 55	86 52	84 47	82 40	80 31	78 19	76 05	73 48	71 33	69 15	66 57	64 38		20	20	
	30	87 23	85 28	83 31	81 31	79 30	77 27	75 21	73 15	71 07	68 57	66 47	64 37		30	30	
	40	85 57	84 07	82 17	80 25	78 31	76 34	74 36	72 37	70 37	68 35	66 32	64 29		40	40	
	50	84 32	82 49	81 05	79 21	77 32	75 41	73 50	71 57	70 04	68 09	66 13	64 16		50	50	
3	00	83 12	81 34	79 55	78 14	76 32	74 48	73 02	71 15	69 28	67 39	65 49	63 59	3	00	00	
	10	81 53	80 21	78 46	77 10	75 33	73 54	72 14	70 31	68 49	67 05	65 21	63 36		10	10	
	20	80 37	79 08	77 38	76 07	74 33	72 59	71 24	69 47	68 09	66 30	64 50	63 10		20	20	
	30	79 22	77 57	76 31	75 03	73 35	72 04	70 33	69 00	67 27	65 52	64 17	62 41		30	30	
	40	78 09	76 47	75 24	74 00	72 35	71 09	69 42	68 12	66 43	65 12	63 41	62 09		40	40	
	50	76 56	75 37	74 17	72 57	71 36	70 13	68 48	67 23	65 57	64 30	63 03	61 34		50	50	
4	00	75 44	74 28	73 12	71 54	70 35	69 16	67 55	66 33	65 10	63 46	62 22	60 56	4	00	00	
	10	74 32	73 19	72 05	70 51	69 35	68 18	67 00	65 41	64 21	63 00	61 40	60 17		10	10	
	20	73 21	72 10	70 59	69 47	68 33	67 19	66 04	64 48	63 30	62 13	60 54	59 35		20	20	
	30	72 10	71 02	69 52	68 42	67 32	66 20	65 07	63 53	62 39	61 24	60 08	58 52		30	30	
	40	70 59	69 52	68 45	67 38	66 29	65 20	64 09	62 59	61 47	60 34	59 21	58 06		40	40	
	50	69 48	68 43	67 39	66 33	65 27	64 19	63 11	62 02	60 53	59 41	58 31	57 19		50	50	
5	00	68 36	67 33	66 30	65 26	64 22	63 17	62 11	61 04	59 56	58 48	57 39	56 29	5	00	00	
	10	67 24	66 23	65 22	64 20	63 17	62 14	61 10	60 05	59 00	57 53	56 47	55 39		10	10	
	20	66 12	65 13	64 13	63 12	62 12	61 10	60 08	59 05	58 02	56 57	55 52	54 47		20	20	
	30	64 59	64 01	63 03	62 04	61 05	60 05	59 04	58 03	57 02	55 59	54 57	53 53		30	30	
	40	63 46	62 48	61 52	60 55	59 58	58 59	58 00	57 01	56 01	55 00	53 59	52 57		40	40	
	50	62 31	61 36	60 42	59 46	58 49	57 53	56 55	55 57	54 59	54 00	53 00	52 00		50	50	
6	00	61 16	60 22	59 29	58 34	57 39	56 44	55 48	54 51	53 55	52 57	52 00	51 01	6	00	00	
	10	59 59	59 07	58 15	57 22	56 29	55 35	54 40	53 45	52 50	51 54	50 57	50 01		10	10	
	20	58 42	57 51	57 01	56 09	55 17	54 24	53 31	52 38	51 44	50 50	49 55	49 00		20	20	
	30	57 25	56 34	55 44	54 54	54 04	53 12	52 21	51 28	50 36	49 43	48 50	47 57		30	30	
	40	56 05	55 16	54 28	53 38	52 49	51 59	51 09	50 17	49 27	48 35	47 44	46 51		40	40	
	50	54 45	53 57	53 10	52 21	51 33	50 44	49 55	49 06	48 16	47 26	46 35	45 45		50	50	
7	00	53 23	52 35	51 49	51 03	50 16	49 29	48 40	47 52	47 05	46 15	45 26	44 36	7	00	00	
	10	51 59	51 13	50 28	49 42	48 57	48 11	47 25	46 38	45 51	45 03	44 16	43 27		10	10	
	20	50 34	49 50	49 06	48 22	47 37	46 52	46 07	45 21	44 36	43 49	43 03	42 16		20	20	
	30	49 08	48 25	47 42	46 58	46 15	45 32	44 47	44 03	43 18	42 34	41 49	41 04		30	30	
	40	47 40	46 58	46 16	45 34	44 52	44 10	43 27	42 44	42 01	41 17	40 34	39 50		40	40	
	50	46 11	45 30	44 50	44 09	43 28	42 46	42 05	41 23	40 42	39 59	39 18	38 34		50	50	
8	00	44 40	44 00	43 20	42 40	42 01	41 21	40 41	40 00	39 20	38 39	37 59	37 17	8	00	00	
	10	43 07	42 29	41 50	41 12	40 34	39 55	39 16	38 37	37 57	37 18	36 39	35 59		10	10	
	20	41 33	40 55	40 19	39 41	39 03	38 26	37 48	37 11	36 33	35 55	35 17	34 39		20	20	
	30	39 56	39 20	38 45	38 08	37 33	36 56	36 19	35 43	35 07	34 30	33 54	33 17		30	30	
	40	38 18	37 43	37 08	36 34	35 59	35 25	34 49	34 14	33 39	33 05	32 30	31 53		40	40	
	50	36 38	36 05	35 31	34 57	34 24	33 51	33 17	32 43	32 10	31 37	31 03	30 29		50	50	
9	00	34 56	34 24	33 52	33 19	32 48	32 16	31 43	31 11	30 40	30 07	29 35	29 03	9	00	00	
	10	33 13	32 42	32 11	31 40	31 10	30 40	30 08	29 37	29 07	28 37	28 06	27 35		10	10	
	20	31 28	30 58	30 29	30 00	29 31	29 01	28 32	28 02	27 33	27 04	26 36	26 06		20	20	
	30	29 40	29 12	28 45	28 17	27 50	27 22	26 53	26 27	25 58	25 32	25 04	24 36		30	30	
	40	27 50	27 25	26 59	26 32	26 07	25 40	25 14	24 49	24 22	23 56	23 31	23 04		40	40	
	50	26 00	25 35	25 11	24 46	24 22	23 57	23 33	23 08	22 44	22 20	21 56	21 31		50	50	
10	00	24 07	23 44	23 22	22 58	22 36	22 13	21 50	21 27	21 05	20 42	20 20	19 58	10	00	00	
	10	22 14	21 52	21 31	21 09	20 49	20 27	20 06	19 46	19 24	19 03	18 42	18 22		10	10	
	20	20 17	19 59	19 39	19 19	19 00	18 40	18 21	18 02	17 43	17 24	17 04	16 46		20	20	
	30	18 21	18 03	17 45	17 27	17 10	16 52	16 35	16 17	16 00	15 43	15 25	15 08		30	30	
	40	16 22	16 05	15 50	15 34	15 18	15 03	14 47	14 32	14 15	14 00	13 45	13 29		40	40	
	50	14 23	14 08	13 54	13 40	13 26	13 12	12 59	12 45	12 31	12 18	12 04	11 51		50	50	
11	00	12 21	12 08	11 56	11 44	11 33	11 21	11 09	10 57	10 45	10 33	10 22	10 10	11	00	00	
	10	10 19	10 09	9 59	9 49	9 38	9 29	9 19	9 09	8 59	8 49	8 39	8 30		10	10	
	20	8 17	8 08	8 00	7 52	7 44	7 36	7 27									

AZIMUTH OR TRUE BEARING.

LATITUDE 41°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 41°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
0	00	13 25	11 35	10 08	8 58	7 59	7 11	6 30	5 54	5 22	4 55	4 31	4 09	0	00
0	10	25 15	22 05	19 32	17 23	15 35	14 04	12 45	11 37	10 37	9 44	8 57	8 14	0	10
0	20	34 48	30 56	27 40	24 52	22 28	20 23	18 35	16 53	15 34	14 18	13 11	12 10	0	20
0	30	42 06	38 01	34 26	31 16	28 30	26 02	23 51	21 55	20 10	18 36	17 11	15 54	0	30
0	40	47 35	43 33	39 54	36 36	33 37	30 57	28 31	26 20	24 20	22 32	20 53	19 23	0	40
0	50													0	50
1	00	51 39	47 49	44 15	40 57	37 54	35 08	32 34	30 14	28 04	26 05	24 16	22 35	1	00
1	10	54 45	51 07	47 42	44 28	41 27	38 40	36 03	33 38	31 22	29 16	27 19	25 30	1	10
1	20	57 03	53 39	50 25	47 19	44 23	41 37	39 00	36 33	34 15	32 05	30 03	28 09	1	20
1	30	58 46	55 35	52 32	49 34	46 45	44 04	41 29	39 03	36 44	34 32	32 27	30 30	1	30
1	40	60 02	57 05	54 12	51 24	48 41	46 05	43 34	41 11	38 53	36 40	34 36	32 34	1	40
1	50	61 00	58 13	55 29	52 50	50 14	47 44	45 19	42 57	40 42	38 30	36 25	34 24	1	50
2	00	61 38	59 02	56 29	53 58	51 29	49 05	46 44	44 27	42 14	40 05	38 01	36 01	2	00
2	10	62 04	59 38	57 13	54 50	52 29	50 10	47 54	45 41	43 32	41 26	39 23	37 24	2	10
2	20	62 19	60 02	57 44	55 28	53 14	51 02	48 51	46 42	44 36	42 33	40 33	38 35	2	20
2	30	62 25	60 16	58 06	55 57	53 48	51 41	49 36	47 31	45 30	43 29	41 32	39 37	2	30
2	40	62 26	60 22	58 18	56 15	54 13	52 11	50 10	48 10	46 12	44 16	42 21	40 28	2	40
2	50	62 19	60 21	58 24	56 26	54 29	52 32	50 35	48 40	46 46	44 53	43 00	41 11	2	50
3	00	62 06	60 14	58 23	56 30	54 37	52 46	50 53	49 02	47 12	45 22	43 33	41 45	3	00
3	10	61 49	60 02	58 16	56 27	54 39	52 52	51 04	49 17	47 30	45 44	43 58	42 13	3	10
3	20	61 28	59 45	58 03	56 19	54 36	52 52	51 09	49 25	47 42	45 58	44 16	42 34	3	20
3	30	61 03	59 25	57 47	56 08	54 29	52 48	51 08	49 28	47 48	46 07	44 28	42 48	3	30
3	40	60 35	59 01	57 27	55 51	54 16	52 39	51 02	49 25	47 49	46 12	44 34	42 57	3	40
3	50	60 04	58 33	57 02	55 30	53 58	52 26	50 52	49 18	47 44	46 10	44 36	43 02	3	50
4	00	59 30	58 03	56 36	55 06	53 37	52 08	50 38	49 07	47 36	46 04	44 33	43 02	4	00
4	10	58 53	57 29	56 05	54 39	53 14	51 47	50 19	48 52	47 23	45 55	44 25	42 56	4	10
4	20	58 15	56 54	55 32	54 09	52 46	51 22	49 58	48 33	47 07	45 41	44 15	42 48	4	20
4	30	57 34	56 15	54 56	53 36	52 16	50 55	49 33	48 10	46 48	45 22	44 00	42 35	4	30
4	40	56 51	55 35	54 19	53 02	51 43	50 25	49 05	47 45	46 24	45 04	43 41	42 20	4	40
4	50	56 06	54 52	53 39	52 23	51 08	49 52	48 35	47 17	45 59	44 40	43 21	42 00	4	50
5	00	55 19	54 08	52 56	51 43	50 30	49 16	48 02	46 45	45 30	44 14	42 57	41 39	5	00
5	10	54 30	53 22	52 12	51 01	49 50	48 38	47 26	46 13	45 04	43 55	42 39	41 14	5	10
5	20	53 40	52 33	51 26	50 17	49 07	47 58	46 48	45 37	44 25	43 13	42 00	40 46	5	20
5	30	52 47	51 43	50 38	49 30	48 24	47 16	46 07	44 59	43 50	42 39	41 28	40 16	5	30
5	40	51 53	50 50	49 47	48 42	47 38	46 31	45 24	44 18	43 10	42 02	40 53	39 43	5	40
5	50	50 58	49 58	48 56	47 53	46 49	45 46	44 41	43 37	42 30	41 23	40 16	39 08	5	50
6	00	50 01	49 02	48 02	47 01	45 59	44 57	43 55	42 52	41 47	40 42	39 38	38 31	6	00
6	10	49 03	48 05	47 07	46 07	45 07	44 07	43 06	42 05	41 02	40 00	38 57	37 52	6	10
6	20	48 03	47 07	46 10	45 11	44 15	43 15	42 16	41 16	40 16	39 15	38 14	37 11	6	20
6	30	47 01	46 06	45 13	44 15	43 19	42 22	41 24	40 25	39 28	38 29	37 28	36 27	6	30
6	40	45 57	45 03	44 11	43 16	42 21	41 26	40 31	39 34	38 37	37 39	36 42	35 42	6	40
6	50	44 53	44 01	43 09	42 16	41 23	40 29	39 35	38 41	37 45	36 49	35 53	34 56	6	50
7	00	43 46	42 56	42 06	41 15	40 23	39 30	38 38	37 45	36 51	35 57	35 03	34 06	7	00
7	10	42 38	41 50	41 01	40 11	39 20	38 30	37 39	36 48	35 56	35 04	34 10	33 16	7	10
7	20	41 29	40 42	39 54	39 06	38 17	37 29	36 39	35 49	34 59	34 08	33 17	32 24	7	20
7	30	40 20	39 32	38 46	38 00	37 12	36 25	35 37	34 48	34 00	33 11	32 21	31 31	7	30
7	40	39 06	38 21	37 36	36 51	36 05	35 19	34 33	33 47	33 00	32 13	31 24	30 35	7	40
7	50	37 52	37 09	36 26	35 41	34 57	34 13	33 29	32 43	31 58	31 12	30 25	29 38	7	50
8	00	36 35	35 54	35 12	34 29	33 47	33 05	32 22	31 38	30 54	30 10	29 25	28 39	8	00
8	10	35 19	34 38	33 58	33 17	32 36	31 56	31 14	30 32	29 49	29 06	28 24	27 40	8	10
8	20	34 00	33 22	32 43	32 03	31 23	30 44	30 04	29 24	28 43	28 02	27 21	26 39	8	20
8	30	32 40	32 03	31 25	30 47	30 09	29 32	28 53	28 14	27 35	26 57	26 16	25 36	8	30
8	40	31 18	30 42	30 07	29 30	28 54	28 20	27 41	27 04	26 26	25 49	25 10	24 33	8	40
8	50	29 54	29 21	28 47	28 11	27 38	27 02	26 27	25 52	25 16	24 40	24 04	23 28	8	50
9	00	28 30	27 58	27 25	26 51	26 19	25 46	25 12	24 38	24 04	23 30	22 56	22 21	9	00
9	10	27 04	26 33	26 02	25 30	24 59	24 27	23 55	23 24	22 51	22 19	21 47	21 14	9	10
9	20	25 37	25 08	24 38	24 08	23 38	23 08	22 39	22 08	21 38	21 07	20 36	20 04	9	20
9	30	24 08	23 40	23 12	22 45	22 19	21 48	21 20	20 51	20 23	19 54	19 25	18 55	9	30
9	40	22 38	22 12	21 46	21 19	20 53	20 26	20 00	19 33	19 06	18 39	18 12	17 44	9	40
9	50	21 06	20 42	20 18	19 53	19 28	19 03	18 39	18 14	17 49	17 24	16 59	16 33	9	50
10	00	19 34	19 12	18 49	18 26	18 03	17 40	17 17	16 54	16 31	16 07	15 44	15 19	10	00
10	10	18 01	17 40	17 19	16 57	16 37	16 15	15 54	15 33	15 12	14 50	14 28	14 06	10	10
10	20	16 26	16 07	15 47	15 28	15 09	14 50	14 30	14 11	13 51	13 31	13 12	12 52	10	20
10	30	14 40	14 32	14 17	13 58	13 41	13 23	13 06	12 49	12 30	12 13	11 55	11 37	10	30
10	40	13 14	12 58	12 43	12 27	12 12	11 56	11 41	11 25	11 08	10 52	10 37	10 21	10	40
10	50	11 36	11 23	11 10	10 56	10 42	10 28	10 14	10 01	9 46	9 33	9 19	9 04	10	50
11	00	9 58	9 46	9 36	9 23	9 11	9 00	8 48	8 36	8 24	8 12	8 00	7 48	11	00
11	10	8 20	8 10	8 01	7 50	7 40	7 30	7 21	7 11	7 01	6 51	6 40	6 30	11	10
11	20	6 40	6 33	6 24	6 16	6 09	6 01	5 54	5 46	5 37	5 29	5 22	5 13	11	20
11	30	5 01	4 55	4 49	4 43	4 37	4 32	4 25	4 19	4 12	4 07	4 01	3 55	11	30
11	40	3 20	3 16	3 13	3 09	3 05									

AZIMUTH OR TRUE BEARING.

LATITUDE 41°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 41°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h.	m.</	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 42°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 42°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.
		00	00	00	00	00	00	00	00	00	00	00	00		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
0	10	172 39	172 17	171 54	171 26	170 56	170 21	169 41	168 53	167 56	166 47	165 23	163 35	0	10
0	20	165 26	164 46	164 00	163 09	162 12	161 06	159 51	158 23	156 41	154 39	152 14	149 12	0	20
0	30	158 34	157 36	156 33	155 23	154 03	152 34	150 53	148 56	146 45	144 11	141 10	137 38	0	30
0	40	152 06	150 56	149 38	148 13	146 38	144 53	142 55	140 44	138 15	135 27	132 15	128 36	0	40
0	50	146 08	144 47	143 21	141 45	140 01	138 07	136 01	133 41	131 07	128 15	125 05	121 34	0	50
1	00	140 38	139 12	137 39	135 58	134 09	132 10	130 01	127 42	125 07	122 19	119 16	115 57	1	00
1	10	135 37	134 07	132 31	130 47	128 56	126 57	124 48	122 31	120 01	117 21	114 28	111 24	1	10
1	20	131 04	129 32	127 55	126 11	124 21	122 23	120 17	118 03	115 40	113 09	110 27	107 36	1	20
1	30	126 53	125 22	123 45	122 02	120 14	118 19	116 18	114 09	111 54	109 30	107 00	104 21	1	30
1	40	123 06	121 35	120 00	118 19	116 34	114 43	112 46	110 43	108 35	106 19	103 58	101 31	1	40
1	50	119 38	118 08	116 35	114 58	113 15	111 29	109 36	107 40	105 37	103 30	101 18	99 00	1	50
2	00	116 26	114 59	113 28	111 53	110 14	108 31	106 45	104 53	102 58	100 57	98 54	96 45	2	00
2	10	113 29	112 04	110 36	109 04	107 29	105 50	104 08	102 22	100 33	98 40	96 42	94 41	2	10
2	20	110 44	109 22	107 56	106 27	104 56	103 21	101 44	100 03	98 19	96 31	94 30	92 47	2	20
2	30	108 11	106 50	105 28	104 03	102 34	101 04	99 29	97 53	96 14	94 32	92 47	91 00	2	30
2	40	105 47	104 29	103 09	101 46	100 21	98 53	97 21	95 52	94 17	92 40	91 00	89 19	2	40
2	50	103 31	102 15	100 58	99 39	98 16	96 53	95 27	93 58	92 28	90 55	89 20	87 43	2	50
3	00	101 22	100 09	98 54	97 37	96 17	94 58	93 34	92 10	90 43	89 13	87 44	86 11	3	00
3	10	99 20	98 08	96 56	95 41	94 25	93 07	91 47	90 26	89 03	87 38	86 11	84 42	3	10
3	20	97 23	96 14	95 03	93 51	92 37	91 21	90 04	88 47	87 26	86 04	84 42	83 17	3	20
3	30	95 30	94 23	93 14	92 04	90 53	89 40	88 26	87 10	85 53	84 35	83 15	81 52	3	30
3	40	93 42	92 36	91 30	90 21	89 12	88 02	86 50	85 37	84 22	83 07	81 50	80 32	3	40
3	50	91 57	90 53	89 48	88 42	87 35	86 26	85 17	84 06	82 55	81 42	80 28	79 13	3	50
4	00	90 15	89 13	88 10	87 05	86 00	84 54	83 47	82 38	81 28	80 18	79 06	77 54	4	00
4	10	88 35	87 34	86 33	85 31	84 27	83 22	82 17	81 11	80 04	78 55	77 46	76 36	4	10
4	20	86 58	85 59	84 59	83 58	82 56	81 54	80 50	79 45	78 40	77 34	76 27	75 19	4	20
4	30	85 21	84 24	83 27	82 27	81 26	80 25	79 24	78 21	77 18	76 13	75 08	74 03	4	30
4	40	83 48	82 51	81 55	80 57	79 58	78 59	77 58	76 58	75 56	74 53	73 50	72 46	4	40
4	50	82 15	81 20	80 25	79 28	78 30	77 32	76 34	75 34	74 34	73 34	72 32	71 31	4	50
5	00	80 44	79 49	78 54	77 59	77 03	76 06	75 09	74 12	73 13	72 15	71 15	70 15	5	00
5	10	79 13	78 19	77 26	76 32	75 37	74 42	73 46	72 50	71 53	70 57	69 57	68 58	5	10
5	20	77 42	76 50	75 58	75 05	74 11	73 17	72 22	71 27	70 32	69 36	68 39	67 42	5	20
5	30	76 11	75 22	74 29	73 37	72 46	71 53	70 59	70 05	69 11	68 16	67 21	66 25	5	30
5	40	74 41	73 52	73 01	72 10	71 19	70 28	69 35	68 43	67 50	66 56	66 01	65 07	5	40
5	50	73 11	72 22	71 33	70 41	69 53	69 02	68 11	67 20	66 28	65 36	64 43	63 50	5	50
6	00	71 42	70 53	70 05	69 16	68 27	67 37	66 47	65 56	65 05	64 15	63 23	62 31	6	00
6	10	70 10	69 23	68 36	67 47	66 59	66 10	65 21	64 32	63 42	62 52	62 02	61 11	6	10
6	20	68 40	67 54	67 07	66 20	65 32	64 44	63 56	63 08	62 19	61 31	60 41	59 51	6	20
6	30	67 07	66 21	65 36	64 49	64 03	63 16	62 29	61 42	60 55	60 06	59 19	58 30	6	30
6	40	65 35	64 50	64 05	63 19	62 34	61 47	61 02	60 16	59 29	58 43	57 55	57 08	6	40
6	50	64 01	63 17	62 32	61 49	61 04	60 18	59 33	58 48	58 02	57 17	56 31	55 44	6	50
7	00	62 27	61 44	61 00	60 16	59 32	58 47	58 04	57 19	56 34	55 50	55 04	54 20	7	00
7	10	60 50	60 07	59 25	58 42	57 59	57 15	56 33	55 49	55 05	54 22	53 38	52 54	7	10
7	20	59 13	58 30	57 50	57 07	56 25	55 43	55 01	54 17	53 34	52 53	52 09	51 27	7	20
7	30	57 34	56 53	56 12	55 31	54 50	54 08	53 27	52 45	52 03	51 22	50 39	49 58	7	30
7	40	55 54	55 14	54 33	53 53	53 13	52 32	51 51	51 11	50 30	49 49	49 09	48 28	7	40
7	50	54 11	53 32	52 53	52 13	51 34	50 54	50 15	49 35	48 55	48 16	47 36	46 56	7	50
8	00	52 28	51 49	51 10	50 31	49 53	49 14	48 36	47 57	47 18	46 40	46 01	45 23	8	00
8	10	50 42	50 04	49 27	48 49	48 11	47 33	46 55	46 18	45 39	45 03	44 25	43 48	8	10
8	20	48 54	48 17	47 40	47 04	46 27	45 51	45 14	44 37	44 00	43 24	42 47	42 11	8	20
8	30	47 03	46 28	45 52	45 13	44 39	44 04	43 30	42 54	42 18	41 44	41 08	40 32	8	30
8	40	45 11	44 36	44 02	43 27	42 52	42 18	41 43	41 09	40 35	40 00	39 27	38 52	8	40
8	50	43 17	42 43	42 10	41 36	41 02	40 28	39 55	39 22	38 49	38 16	37 43	37 11	8	50
9	00	41 20	40 47	40 15	39 42	39 10	38 37	38 05	37 34	37 01	36 30	35 58	35 27	9	00
9	10	39 20	38 49	38 17	37 46	37 15	36 44	36 14	35 42	35 12	34 42	34 11	33 41	9	10
9	20	37 19	36 48	36 18	35 48	35 18	34 49	34 20	33 50	33 21	32 52	32 23	31 54	9	20
9	30	35 14	34 46	34 17	33 48	33 19	32 51	32 23	31 55	31 27	31 00	30 32	30 05	9	30
9	40	33 08	32 40	32 13	31 46	31 18	30 52	30 25	29 58	29 31	29 06	28 40	28 14	9	40
9	50	30 59	30 32	30 06	29 41	29 15	28 49	28 24	27 59	27 34	27 10	26 46	26 21	9	50
10	00	28 47	28 22	27 58	27 34	27 10	26 46	26 22	25 59	25 36	25 13	24 50	24 27	10	00
10	10	26 33	26 09	25 47	25 24	25 02	24 40	24 18	23 56	23 35	23 13	22 53	22 31	10	10
10	20	24 16	23 54	23 34	23 14	22 53	22 32	22 12	21 52	21 32	21 12	20 54	20 34	10	20
10	30	21 58	21 38	21 19	21 00	20 42	20 23	20 04	19 47	19 28	19 11	18 53	18 35	10	30
10	40	19 37	19 20	19 02	18 45	18 28	18 11	17 55	17 38	17 22	17 07	16 51	16 34	10	40
10	50	17 15	16 59	16 44	16 29	16 14	15 59	15 44	15 30	15 16	15 01	14 47	14 33	10	50
11	00	14 50	14 36	14 23	14 11	13 57	13 45	13 31	13 19	13 06	12 55	12 42	12 30	11	00
11	10	12 24	12 13	12 02	11 51	11 40	11 29	11 19	11 08	10 58	10 47	10 37	10 17	11	10
11															

AZIMUTH OR TRUE BEARING.

LATITUDE 42°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 42°.		
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.			
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.		
		0	0	0	0	0	0	0	0	0	0	0	0			0	
0	00	180 00	180 00	180 00	180 00	180 00	180 00	.....	0 00	0 00	0 00	0 00	0 00	0	00	0 00
0	10	161 16	158 06	153 36	146 50	135 51	117 16	89 10	60 41	41 35	30 18	23 21	18 45	1	00	10 10	
0	20	145 28	140 43	134 37	126 38	116 17	103 17	88 20	73 09	59 38	48 43	40 15	33 46	1	10	20 20	
0	30	133 25	128 24	122 33	115 17	106 58	97 36	87 29	77 14	67 25	58 35	50 53	44 21	1	20	30 30	
0	40	124 26	119 41	114 16	108 11	101 31	94 16	86 39	78 55	71 19	64 08	57 31	51 32	1	30	40 40	
0	50	117 39	113 19	108 33	103 23	97 48	91 55	85 49	79 36	73 26	67 27	61 46	56 25	1	40	50 50	
1	00	112 21	108 26	104 15	99 46	95 02	90 04	84 58	79 47	74 35	69 29	64 32	59 48	1	00	00 00	
1	10	108 06	104 34	100 50	96 53	92 47	88 31	84 07	79 40	75 11	70 45	66 25	62 10	1	10	10 10	
1	20	104 34	101 23	98 01	94 31	90 52	87 07	83 16	79 22	75 27	71 31	67 38	63 49	1	20	20 20	
1	30	101 33	98 39	95 36	92 27	89 12	85 50	82 25	78 57	75 25	71 55	68 26	64 58	1	30	30 30	
1	40	98 57	96 16	93 30	90 38	87 40	84 39	81 34	78 26	75 15	72 04	68 54	65 44	1	40	40 40	
1	50	96 37	94 09	91 36	88 59	86 17	83 32	80 42	77 51	74 59	72 03	69 08	66 14	1	50	50 50	
2	00	94 31	92 14	89 52	87 27	84 58	82 25	79 50	77 12	74 33	71 53	69 11	66 30	2	00	00 00	
2	10	92 37	90 28	88 16	86 01	83 42	81 21	78 58	76 32	74 04	71 36	69 06	66 36	2	10	10 10	
2	20	90 49	88 49	86 45	84 40	82 31	80 19	78 05	75 50	73 32	71 13	68 47	66 33	2	20	20 20	
2	30	89 08	87 15	85 20	83 21	81 21	79 19	77 12	75 05	72 57	70 47	68 35	66 23	2	30	30 30	
2	40	87 34	85 47	83 57	82 07	80 12	78 16	76 19	74 19	72 18	70 16	68 13	66 08	2	40	40 40	
2	50	86 04	84 22	82 38	80 53	79 05	77 16	75 25	73 32	71 38	69 43	67 45	65 48	2	50	50 50	
3	00	84 36	83 00	81 22	79 42	78 00	76 16	74 31	72 44	70 55	69 06	67 15	65 24	3	00	00 00	
3	10	83 12	81 40	80 07	78 31	76 54	75 16	73 36	71 55	70 11	68 28	66 41	64 55	3	10	10 10	
3	20	81 51	80 23	78 53	77 22	75 49	74 16	72 40	71 04	69 25	67 47	66 06	64 25	3	20	20 20	
3	30	80 31	79 06	77 41	76 14	74 45	73 15	71 44	70 11	68 38	67 04	65 28	63 51	3	30	30 30	
3	40	79 12	77 52	76 29	75 06	73 41	72 15	70 48	69 19	67 49	66 19	64 47	63 14	3	40	40 40	
3	50	77 56	76 38	75 19	73 58	72 37	71 14	69 50	68 26	67 00	65 32	64 04	62 35	3	50	50 50	
4	00	76 39	75 25	74 09	72 52	71 33	70 13	68 53	67 31	66 08	64 45	63 20	61 54	4	00	00 00	
4	10	75 24	74 11	72 58	71 44	70 28	69 12	67 54	66 35	65 16	63 55	62 34	61 11	4	10	10 10	
4	20	74 09	72 59	71 48	70 37	69 24	68 10	66 55	65 39	64 22	63 05	61 46	60 26	4	20	20 20	
4	30	72 55	71 47	70 38	69 32	68 19	67 07	65 55	64 41	63 27	62 13	60 56	59 39	4	30	30 30	
4	40	71 41	70 35	69 28	68 22	67 13	66 04	64 54	63 43	62 31	61 19	60 05	58 50	4	40	40 40	
4	50	70 27	69 24	68 18	67 13	66 08	65 00	63 52	62 44	61 34	60 24	59 13	58 01	4	50	50 50	
5	00	69 12	68 11	67 08	66 05	65 00	63 55	62 49	61 43	60 35	59 27	58 18	57 09	5	00	00 00	
5	10	67 58	66 58	65 57	64 55	63 53	62 50	61 46	60 41	59 36	58 31	57 22	56 16	5	10	10 10	
5	20	66 43	65 44	64 45	63 46	62 45	61 44	60 40	59 39	58 35	57 31	56 26	55 21	5	20	20 20	
5	30	65 27	64 30	63 32	62 35	61 36	60 36	59 36	58 35	57 34	56 32	55 28	54 25	5	30	30 30	
5	40	64 11	63 16	62 20	61 23	60 26	59 28	58 29	57 30	56 29	55 30	54 28	53 27	5	40	40 40	
5	50	62 55	62 02	61 06	60 12	59 15	58 19	57 22	56 25	55 25	54 27	53 28	52 28	5	50	50 50	
6	00	61 38	60 45	59 51	58 58	58 03	57 08	56 13	55 16	54 21	53 23	52 25	51 26	6	00	00 00	
6	10	60 19	59 28	58 36	57 43	56 50	55 57	55 03	54 08	53 13	52 20	51 21	50 25	6	10	10 10	
6	20	59 01	58 11	57 19	56 28	55 37	54 45	53 52	52 59	52 05	51 11	50 16	49 22	6	20	20 20	
6	30	57 41	56 52	56 01	55 13	54 22	53 30	52 39	51 47	50 55	50 03	49 10	48 16	6	30	30 30	
6	40	56 20	55 32	54 42	53 54	53 06	52 16	51 26	50 36	49 45	48 54	48 01	47 10	6	40	40 40	
6	50	54 58	54 11	53 23	52 36	51 48	50 59	50 11	49 23	48 33	47 43	46 52	46 01	6	50	50 50	
7	00	53 33	52 48	52 02	51 16	50 29	49 42	48 55	48 07	47 19	46 31	45 42	44 53	7	00	00 00	
7	10	52 09	51 24	50 39	49 55	49 09	48 22	47 37	46 50	46 04	45 17	44 30	43 42	7	10	10 10	
7	20	50 43	49 59	49 16	48 32	47 46	47 03	46 18	45 33	44 48	44 02	43 15	42 29	7	20	20 20	
7	30	49 15	48 33	47 51	47 08	46 24	45 41	44 58	44 14	43 29	42 46	42 01	41 16	7	30	30 30	
7	40	47 46	47 05	46 23	45 43	44 59	44 18	43 36	42 53	42 11	41 28	40 44	40 00	7	40	40 40	
7	50	46 16	45 36	44 55	44 15	43 34	42 54	42 12	41 31	40 49	40 08	39 26	38 44	7	50	50 50	
8	00	44 43	44 04	43 24	42 46	42 07	41 27	40 47	40 07	39 27	38 47	38 06	37 26	8	00	00 00	
8	10	43 10	42 32	41 54	41 16	40 38	39 59	39 21	38 43	38 04	37 25	36 46	36 06	8	10	10 10	
8	20	41 33	40 57	40 21	39 45	39 08	38 30	37 53	37 16	36 38	36 01	35 23	34 46	8	20	20 20	
8	30	39 57	39 22	38 46	38 10	37 35	36 59	36 24	35 48	35 11	34 36	33 59	33 22	8	30	30 30	
8	40	38 18	37 44	37 09	36 36	36 01	35 27	34 52	34 18	33 43	33 09	32 33	31 59	8	40	40 40	
8	50	36 37	36 04	35 31	34 59	34 26	33 53	33 20	32 47	32 13	31 40	31 06	30 33	8	50	50 50	
9	00	35 55	34 23	33 52	33 21	32 49	32 17	31 45	31 14	30 42	30 11	29 39	29 06	9	00	00 00	
9	10	33 11	32 41	32 10	31 41	31 10	30 40	30 10	29 39	29 09	28 39	28 08	27 38	9	10	10 10	
9	20	31 25	30 56	30 27	29 59	29 30	29 02	28 33	28 04	27 35	27 07	26 37	26 09	9	20	20 20	
9	30	29 37	29 10	28 42	28 16	27 48	27 21	26 54	26 27	25 59	25 33	25 05	24 38	9	30	30 30	
9	40	27 48	27 22	26 56	26 31	26 05	25 40	25 14	24 48	24 22	23 57	23 31	23 06	9	40	40 40	
9	50	25 56	25 33	25 09	24 44	24 20	23 57	23 32	23 08	22 44	22 21	21 56	21 33	9	50	50 50	
10	00	24 04	23 42	23 19	22 57	22 34	22 12	21 50	21 27	21 05	20 43	20 20	19 58	10	00	00 00	
10	10	22 10	21 48	21 27	21 07	20 46	20 26	20 05	19 44	19 24	19 03	18 42	18 23	10	10	10 10	
10	20	20 14	19 55	19 36	19 17	18 58	18 39	18 20	18 01	17 42	17 23	17 04	16 45	10	20	20 20	
10	30	18 17	18 00	17 42	17 26	17 08	16 51	16 33	16 16	15 59	15 42	15 25	15 08	10	30	30 30	
10	40	16 19	16 03	15 47	15 32	15 16	15 01	14 46	14 31	14 16	14 00	13 45	13 29	10			

AZIMUTH OR TRUE BEARING.

LATITUDE 42°.			DECLINATION—SAME NAME AS—LATITUDE.																LATITUDE 42°.					
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.										
h.	m.													h.	m.									
		0	1	2	3	4	5	6	7	8	9	10	11			0	1	2	3	4	5			
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	0 00	0 00	0 00	0 00	0 00	0 00			
	10	15 33	13 10	11 22	9 56	8 46	7 49	7 01	6 20	5 45	5 14	4 47	4 23		10	15 33	13 10	11 22	9 56	8 46	7 49			
	20	28 46	24 50	21 42	19 09	17 02	15 15	13 45	12 27	11 20	10 20	9 28	8 41		20	28 46	24 50	21 42	19 09	17 02	15 15			
	30	38 53	34 17	30 26	27 10	24 24	22 01	19 58	18 09	16 35	15 11	13 56	12 49		30	38 53	34 17	30 26	27 10	24 24	22 01			
	40	46 13	41 33	37 27	33 52	30 43	27 58	25 31	23 21	21 25	19 41	18 08	16 44		40	46 13	41 33	37 27	33 52	30 43	27 58			
	50	51 31	47 02	42 58	39 18	36 00	33 02	30 21	27 57	25 45	23 47	21 59	20 21		50	51 31	47 02	42 58	39 18	36 00	33 02			
1	00	55 19	51 09	47 15	43 39	40 20	37 17	34 30	31 57	29 36	27 27	25 29	23 40	1	00	55 19	51 09	47 15	43 39	40 20	37 17			
	10	58 06	54 13	50 33	47 06	43 51	40 50	38 01	35 24	32 59	30 43	28 38	26 40		10	58 06	54 13	50 33	47 06	43 51	40 50			
	20	60 07	56 32	53 09	49 48	46 41	43 45	40 58	38 20	35 52	33 33	31 23	29 21		20	60 07	56 32	53 09	49 48	46 41	43 45			
	30	61 35	58 16	55 03	51 57	48 58	46 07	43 25	40 49	38 22	36 02	33 50	31 45		30	61 35	58 16	55 03	51 57	48 58	46 07			
	40	62 37	59 33	56 33	53 38	50 48	48 03	45 26	42 54	40 29	38 09	35 57	33 50		40	62 37	59 33	56 33	53 38	50 48	48 03			
	50	63 21	60 29	57 40	54 55	52 14	49 37	47 05	44 38	42 15	39 58	37 47	35 41		50	63 21	60 29	57 40	54 55	52 14	49 37			
2	00	63 49	61 10	58 31	55 56	53 22	50 52	48 27	46 04	43 45	41 31	39 21	37 15	2	00	63 49	61 10	58 31	55 56	53 22	50 52			
	10	64 05	61 36	59 07	56 41	54 15	51 52	49 32	47 13	44 59	42 49	40 42	38 37		10	64 05	61 36	59 07	56 41	54 15	51 52			
	20	64 12	61 51	59 31	57 13	54 54	52 37	50 24	48 11	46 00	43 54	41 49	39 47		20	64 12	61 51	59 31	57 13	54 54	52 37			
	30	64 11	61 59	59 46	57 34	55 21	53 12	51 03	48 56	46 51	44 47	42 45	40 46		30	64 11	61 59	59 46	57 34	55 21	53 12			
	40	64 03	61 58	59 52	57 47	55 41	53 37	51 33	49 30	47 31	45 30	43 32	41 36		40	64 03	61 58	59 52	57 47	55 41	53 37			
	50	63 49	61 50	59 51	57 52	55 52	53 53	51 55	49 57	48 00	46 04	44 09	42 15		50	63 49	61 50	59 51	57 52	55 52	53 53			
3	00	63 31	61 38	59 44	57 51	55 56	54 03	52 03	50 15	48 22	46 30	44 38	42 48	3	00	63 31	61 38	59 44	57 51	55 56	54 03			
	10	63 09	61 21	59 32	57 44	55 54	54 05	52 15	50 26	48 37	46 48	45 00	43 13		10	63 09	61 21	59 32	57 44	55 54	54 05			
	20	62 43	60 59	59 16	57 31	55 47	54 02	52 16	50 31	48 46	47 00	45 16	43 31		20	62 43	60 59	59 16	57 31	55 47	54 02			
	30	62 13	60 34	58 54	57 15	55 34	53 53	52 12	50 30	48 48	47 07	45 25	43 43		30	62 13	60 34	58 54	57 15	55 34	53 53			
	40	61 41	60 06	58 30	56 54	55 17	53 40	52 03	50 24	48 46	47 07	45 29	43 51		40	61 41	60 06	58 30	56 54	55 17	53 40			
	50	61 05	59 35	58 03	56 30	54 57	53 23	51 48	50 14	48 39	47 04	45 28	43 53		50	61 05	59 35	58 03	56 30	54 57	53 23			
4	00	60 28	59 00	57 32	56 03	54 33	53 03	51 32	50 00	48 28	46 55	45 22	43 49	4	00	60 28	59 00	57 32	56 03	54 33	53 03			
	10	59 48	58 23	56 58	55 33	54 06	52 39	51 10	49 42	48 13	46 43	45 13	43 43		10	59 48	58 23	56 58	55 33	54 06	52 39			
	20	59 05	57 44	56 22	54 59	53 35	52 11	50 45	49 20	47 54	46 27	45 00	43 32		20	59 05	57 44	56 22	54 59	53 35	52 11			
	30	58 22	57 03	55 43	54 23	53 02	51 41	50 18	48 55	47 32	46 09	44 43	43 17		30	58 22	57 03	55 43	54 23	53 02	51 41			
	40	57 36	56 20	55 02	53 45	52 27	51 08	49 48	48 27	47 06	45 45	44 23	43 00		40	57 36	56 20	55 02	53 45	52 27	51 08			
	50	56 48	55 35	54 20	53 05	51 49	50 33	49 15	47 57	46 39	45 19	43 59	42 39		50	56 48	55 35	54 20	53 05	51 49	50 33			
5	00	55 58	54 47	53 35	52 23	51 09	49 55	48 40	47 24	46 07	44 50	43 33	42 15	5	00	55 58	54 47	53 35	52 23	51 09	49 55			
	10	55 07	53 58	52 48	51 38	50 26	49 15	48 02	46 48	45 34	44 19	43 04	41 48		10	55 07	53 58	52 48	51 38	50 26	49 15			
	20	54 15	53 07	52 00	50 52	49 42	48 32	47 22	46 10	44 59	43 47	42 33	41 18		20	54 15	53 07	52 00	50 52	49 42	48 32			
	30	53 21	52 16	51 09	50 03	48 56	47 49	46 40	45 31	44 20	43 10	41 59	40 47		30	53 21	52 16	51 09	50 03	48 56	47 49			
	40	52 24	51 21	50 17	49 13	48 08	47 02	45 56	44 48	43 40	42 32	41 22	40 12		40	52 24	51 21	50 17	49 13	48 08	47 02			
	50	51 27	50 26	49 24	48 22	47 18	46 14	45 09	44 04	42 58	41 51	40 44	39 36		50	51 27	50 26	49 24	48 22	47 18	46 14			
6	00	50 28	49 28	48 28	47 28	46 26	45 25	44 21	43 17	42 14	41 09	40 04	38 57	6	00	50 28	49 28	48 28	47 28	46 26	45 25			
	10	49 27	48 30	47 31	46 32	45 33	44 32	43 31	42 30	41 27	40 25	39 21	38 17		10	49 27	48 30	47 31	46 32	45 33	44 32			
	20	48 25	47 29	46 33	45 35	44 37	43 38	42 39	41 39	40 39	39 39	38 37	37 35		20	48 25	47 29	46 33	45 35	44 37	43 38			
	30	47 22	46 28	45 32	44 36	43 40	42 43	41 46	40 48	39 50	38 50	37 50	36 50		30	47 22	46 28	45 32	44 36	43 40	42 43			
	40	46 17	45 24	44 30	43 36	42 42	41 47	40 51	39 54	38 57	38 01	37 02	36 03		40	46 17	45 24	44 30	43 36	42 42	41 47			
	50	45 11	44 19	43 28	42 34	41 42	40 48	39 54	38 59	38 04	37 08	36 11	35 15		50	45 11	44 19	43 28	42 34	41 42	40 48			
7	00	44 03	43 14	42 22	41 31	40 40	39 48	38 56	38 03	37 09	36 15	35 21	34 25	7	00	44 03	43 14	42 22	41 31	40 40	39 48			
	10	42 54	42 06	41 16	40 26	39 37	38 47	37 55	37 04	36 12	35 20	34 27	33 33		10	42 54	42 06	41 16	40 26	39 37	38 47			
	20	41 43	40 56	40 08	39 20	38 31	37 43	36 54	36 04	35 13	34 23	33 32	32 40		20	41 43	40 56	40 08	39 20	38 31	37 43			
	30	40 40	39 45	38 59	38 13	37 25	36 38	35 51	35 02	34 13	33 25	32 35	31 45		30	40 40	39 45	38 59	38 13	37 25	36 38			
	40	39 17	38 33	37 47	37 03	36 18	35 32	34 46	33 59	33 13	32 25	31 37	30 49		40	39 17	38 33	37 47	37 03	36 18	35 32			
	50	38 02	37 19	36 36	35 52	35 09	34 25	33 40	32 55	32 10	31 24	30 38	29 51		50	38 02	37 19	36 36	35 52	35 09	34 25			
8	00	36 45	36 03	35 21	34 40	33 58	33 15	32 32	31 49	31 06	30 21	29 37	28 52	8	00	36 45	36 03	35 21	34 40	33 58	33 15			
	10	35 27	34 47	34 06	33 26	32 45	32 05	31 23	30 42	30 00	29 17	28 34	27 51		10	35 27	34 47							

AZIMUTH OR TRUE BEARING.

LATITUDE 42°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 42°.		
Hour Angle.			60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.			
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.	o /	
0	00	0 00	0														

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 43°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 43°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.
		0	0	0	0	0	0	0	0	0	0	0	0		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
	10	173 01	172 42	172 21	171 58	171 31	171 01	170 27	169 47	169 00	168 04	166 56	165 33		10
	20	166 08	165 33	164 53	164 08	163 18	162 21	161 16	160 02	158 36	156 55	154 54	152 29		20
	30	159 35	158 44	157 47	156 44	155 34	154 16	152 48	151 08	149 13	147 02	144 30	141 30		30
	40	153 21	152 17	151 08	149 51	148 27	146 53	145 09	143 12	141 01	138 33	135 45	132 34		40
	50	147 33	146 19	145 00	143 34	142 00	140 16	138 23	136 17	133 58	131 25	128 33	125 23		50
1	00	142 09	140 50	139 24	137 52	136 12	134 24	132 26	130 17	127 57	125 23	122 35	119 32	1	00
	10	137 13	135 48	134 20	132 44	131 01	129 11	127 11	125 04	122 45	120 16	117 36	114 42		10
	20	132 40	131 14	129 43	128 06	126 23	124 32	122 35	120 30	118 16	115 50	113 20	110 38		20
	30	128 30	127 03	125 32	123 56	122 13	120 25	118 31	116 29	114 20	112 04	109 40	107 08		30
	40	124 41	123 15	121 44	120 09	118 34	116 44	114 51	112 54	110 52	108 43	106 27	104 05		40
	50	121 10	119 45	118 15	116 43	115 05	113 22	111 36	109 44	107 46	105 44	103 33	101 22		50
2	00	117 51	116 31	115 05	113 33	111 58	110 19	108 37	106 49	104 58	103 02	101 01	99 19	2	00
	10	114 55	113 33	112 07	110 39	109 08	107 33	105 53	104 11	102 25	100 34	98 39	96 42		10
	20	112 07	110 47	109 24	107 58	106 31	104 58	103 23	101 45	100 03	98 18	96 30	94 39		20
	30	109 30	108 11	106 51	105 28	104 02	102 34	101 03	99 28	97 50	96 12	94 29	92 44		30
	40	107 01	105 45	104 27	103 07	101 44	100 19	98 51	97 22	95 48	94 13	92 36	90 55		40
	50	104 42	103 28	102 13	100 54	99 34	98 12	96 48	95 21	93 52	92 22	90 48	89 13		50
3	00	102 29	101 17	100 04	98 49	97 32	96 12	94 51	93 28	92 03	90 36	89 06	87 35	3	00
	10	100 23	99 12	98 01	96 49	95 34	94 18	92 59	91 39	90 17	88 54	87 28	86 01		10
	20	98 22	97 14	96 05	94 54	93 41	92 27	91 12	89 55	88 36	87 16	85 54	84 28		20
	30	96 26	95 20	94 13	93 05	91 54	90 42	89 29	88 15	86 59	85 41	84 22	83 02		30
	40	94 31	93 30	92 21	91 17	90 10	89 00	87 49	86 38	85 25	84 10	82 54	81 36		40
	50	92 46	91 43	90 40	89 37	88 28	87 21	86 13	85 03	83 52	82 40	81 27	80 11		50
4	00	91 01	90 00	88 58	87 55	86 50	85 45	84 39	83 30	82 22	81 13	80 02	78 49	4	00
	10	89 18	88 18	87 18	86 16	85 14	84 10	83 06	82 00	80 54	79 46	78 38	77 28		10
	20	87 38	86 40	85 41	84 41	83 40	82 38	81 35	80 32	79 27	78 22	77 16	76 07		20
	30	86 00	85 03	84 06	83 07	82 08	81 07	80 06	79 04	78 02	76 58	75 53	74 47		30
	40	84 23	83 27	82 31	81 34	80 36	79 37	78 37	77 37	76 36	75 35	74 32	73 28		40
	50	82 48	81 53	80 59	80 03	79 06	78 09	77 10	76 11	75 12	74 12	73 11	72 09		50
5	00	81 14	80 20	79 26	78 31	77 36	76 40	75 44	74 46	73 49	72 50	71 51	70 50	5	00
	10	79 39	78 48	77 55	77 01	76 07	75 13	74 17	73 21	72 25	71 28	70 30	69 32		10
	20	78 07	77 15	76 24	75 32	74 39	73 46	72 52	71 57	71 02	70 06	69 10	68 12		20
	30	76 34	75 43	74 53	74 02	73 11	72 18	71 25	70 32	69 39	68 44	67 49	66 54		30
	40	75 02	74 12	73 23	72 33	71 42	70 51	69 59	69 07	68 15	67 22	66 28	65 33		40
	50	73 30	72 42	71 53	71 04	70 14	69 24	68 33	67 42	66 51	66 59	66 07	65 13		50
6	00	71 58	71 10	70 22	69 34	68 45	67 56	67 07	66 16	65 26	64 36	63 45	62 53	6	00
	10	70 25	69 38	68 51	68 03	67 15	66 28	65 40	64 51	64 02	63 13	62 22	61 31		10
	20	68 52	68 06	67 20	66 34	65 47	65 00	64 12	63 24	62 36	61 47	60 59	60 09		20
	30	67 18	66 33	65 48	65 03	64 16	63 31	62 43	61 57	61 10	60 22	59 34	58 46		30
	40	65 44	64 59	64 14	63 30	62 45	61 59	61 14	60 28	59 42	58 56	58 10	57 21		40
	50	64 09	63 25	62 42	61 57	61 13	60 29	59 44	58 59	58 14	57 28	56 43	55 57		50
7	00	62 32	61 49	61 06	60 23	59 40	58 57	58 12	57 28	56 45	56 00	55 16	54 30	7	00
	10	60 54	60 11	59 29	58 48	58 05	57 23	56 40	55 57	55 14	54 30	53 47	53 03		10
	20	59 15	58 34	57 52	57 11	56 30	55 48	55 06	54 24	53 42	53 00	52 18	51 35		20
	30	57 35	56 54	56 14	55 34	54 53	54 12	53 31	52 50	52 09	51 28	50 47	50 05		30
	40	55 53	55 13	54 34	53 55	53 15	52 35	51 55	51 15	50 35	49 55	49 14	48 33		40
	50	54 10	53 31	52 53	52 13	51 34	50 55	50 16	49 38	48 59	48 19	47 40	47 00		50
8	00	52 24	51 46	51 09	50 30	49 52	49 14	48 36	47 58	47 20	46 42	46 05	45 25	8	00
	10	50 38	50 01	49 23	48 46	48 09	47 32	46 55	46 18	45 42	45 04	44 28	43 50		10
	20	48 49	48 13	47 36	46 59	46 24	45 48	45 13	44 36	44 01	43 25	42 48	42 13		20
	30	46 58	46 22	45 47	45 12	44 37	44 02	43 27	42 53	42 19	41 45	41 09	40 33		30
	40	45 04	44 30	43 56	43 22	42 49	42 14	41 40	41 06	40 33	39 59	39 26	38 52		40
	50	43 10	42 36	42 03	41 31	40 57	40 25	39 52	39 19	38 47	38 14	37 43	37 10		50
9	00	41 11	40 39	40 08	39 36	39 04	38 32	38 01	37 30	36 59	36 27	35 57	35 25	9	00
	10	39 12	38 41	38 10	37 40	37 09	36 39	36 09	35 39	35 09	34 39	34 09	33 39		10
	20	37 09	36 40	36 10	35 41	35 11	34 43	34 14	33 45	33 17	32 48	32 20	31 51		20
	30	35 05	34 37	34 09	33 41	33 13	32 46	32 18	31 51	31 23	30 56	30 29	30 02		30
	40	33 05	32 31	32 04	31 38	31 11	30 45	30 19	29 53	29 27	29 02	28 37	28 11		40
	50	30 49	30 23	29 58	29 33	29 08	28 44	28 19	27 54	27 30	27 06	26 42	26 18		50
10	00	28 37	28 14	27 50	27 26	27 03	26 40	26 17	25 54	25 31	25 09	24 46	24 24	10	00
	10	26 23	26 01	25 39	25 17	24 55	24 34	24 12	23 51	23 30	23 09	22 48	22 27		10
	20	24 08	23 47	23 27	23 06	22 46	22 27	22 07	21 48	21 28	21 08	20 49	20 30		20
	30	21 49	21 30	21 12	20 54	20 36	20 17	19 59	19 41	19 24	19 07	18 49	18 31		30
	40	19 29	19 12	18 56	18 39	18 22	18 06	17 50	17 34	17 18	17 02	16 47	16 31		40
	50	17 08	16 52	16 38	16 23	16 08	15 54	15 40	15 26	15 12	14 58	14 44	14 30		50
11	00	14 44	14 30	14 18	14 05	13 53	13 40	13 28	13 15	13 03	12 51	12 39</			

AZIMUTH OR TRUE BEARING.

LATITUDE 43°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 43°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		00	00	00	00	00	00	00	00	00	00	00	00		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	...	0 00	0 00	0 00	0 00	0	00
0	10	163 47	161 29	158 21	153 55	147 11	136 16	117 37	89 09	60 16	41 06	29 51	22 29	0	10
0	20	149 30	145 58	141 06	135 00	127 01	116 37	103 29	88 18	72 53	59 13	48 12	39 44	0	20
0	30	137 59	133 46	128 46	122 44	115 35	107 12	97 42	87 26	77 01	67 04	58 07	50 22	0	30
0	40	128 56	124 45	120 00	114 34	108 27	101 41	94 19	86 35	78 43	71 01	63 44	57 02	0	40
0	50	121 52	117 55	113 35	108 46	103 33	97 54	91 56	85 44	79 25	73 10	67 05	61 19	0	50
1	00	116 13	112 35	108 40	104 25	99 53	95 05	90 03	84 52	79 36	74 20	69 09	64 08	1	00
1	10	111 36	108 17	104 44	100 57	96 58	92 47	88 28	84 00	79 29	74 57	70 25	66 00	1	10
1	20	107 45	104 42	101 29	98 06	94 33	90 51	87 02	83 09	79 11	75 11	71 11	67 15	1	20
1	30	104 28	101 39	98 44	95 39	92 27	89 09	85 45	82 16	78 44	75 11	71 37	68 03	1	30
1	40	101 35	99 01	96 19	93 30	90 35	87 37	84 33	81 24	78 13	75 00	71 46	68 32	1	40
1	50	99 03	96 39	94 10	91 35	88 55	86 11	83 23	80 31	77 37	74 41	71 44	68 47	1	50
2	00	96 46	94 31	92 12	89 48	87 22	84 51	82 16	79 39	76 59	74 17	71 33	68 50	2	00
2	10	94 40	92 33	90 24	88 11	85 54	83 34	81 12	78 45	76 17	73 47	71 16	68 44	2	10
2	20	92 43	90 45	88 44	86 39	84 32	82 21	80 08	77 52	75 34	73 15	70 53	68 31	2	20
2	30	90 55	89 03	87 09	85 11	83 12	81 09	79 05	76 58	74 49	72 39	70 27	68 14	2	30
2	40	89 12	87 27	85 39	83 48	81 55	80 01	78 03	76 03	74 02	71 59	69 56	67 50	2	40
2	50	87 35	85 55	84 13	82 28	80 41	78 52	77 02	75 09	73 15	71 19	69 21	67 23	2	50
3	00	86 02	84 26	82 49	81 10	79 30	77 49	76 00	74 14	72 25	70 36	68 44	66 52	3	00
3	10	84 32	83 00	81 28	79 53	78 16	76 38	75 06	73 18	71 35	69 51	68 05	66 18	3	10
3	20	83 05	81 37	80 09	78 39	77 07	75 33	73 58	72 21	70 43	69 04	67 24	65 42	3	20
3	30	81 40	80 16	78 52	77 25	75 57	74 28	72 57	71 25	69 51	68 16	66 41	65 03	3	30
3	40	80 18	78 57	77 35	76 13	74 48	73 22	71 56	70 27	68 58	67 27	65 55	64 22	3	40
3	50	78 56	77 39	76 21	75 01	73 40	72 17	70 53	69 29	68 03	66 36	65 08	63 39	3	50
4	00	77 36	76 22	75 07	73 50	72 32	71 13	69 53	68 30	67 09	65 45	64 20	62 54	4	00
4	10	76 17	75 05	73 52	72 38	71 23	70 07	68 49	67 31	66 12	64 51	63 29	62 06	4	10
4	20	74 59	73 49	72 39	71 27	70 15	69 02	67 47	66 31	65 14	63 57	62 38	61 18	4	20
4	30	73 41	72 34	71 25	70 17	69 06	67 55	66 43	65 30	64 16	63 01	61 45	60 29	4	30
4	40	72 24	71 18	70 13	69 06	67 57	66 49	65 39	64 28	63 17	62 04	60 51	59 37	4	40
4	50	71 08	70 03	68 59	67 55	66 49	65 42	64 34	63 26	62 17	61 06	59 56	58 44	4	50
5	00	69 50	68 48	67 47	66 43	65 39	64 34	63 29	62 22	61 15	60 08	58 59	57 49	5	00
5	10	68 33	67 33	66 32	65 31	64 29	63 27	62 23	61 18	60 14	59 07	58 01	56 53	5	10
5	20	67 15	66 17	65 19	64 18	63 18	62 17	61 15	60 13	59 10	58 06	57 02	55 50	5	20
5	30	65 57	65 00	64 04	63 05	62 07	61 07	60 07	59 07	58 06	57 04	56 01	54 58	5	30
5	40	64 40	63 44	62 48	61 51	60 54	59 57	58 58	58 00	57 00	56 00	54 59	53 57	5	40
5	50	63 20	62 27	61 33	60 37	59 41	58 45	57 49	56 52	55 54	54 55	53 56	52 56	5	50
6	00	62 01	61 08	60 16	59 22	58 28	57 33	56 38	55 42	54 46	53 49	52 52	51 53	6	00
6	10	60 41	59 49	58 58	58 05	57 13	56 19	55 26	54 32	53 37	52 41	51 46	50 50	6	10
6	20	59 20	58 30	57 40	56 49	55 57	55 06	54 13	53 21	52 27	51 34	50 39	49 45	6	20
6	30	57 58	57 09	56 20	55 30	54 40	53 50	52 59	52 08	51 16	50 23	49 30	48 37	6	30
6	40	56 35	55 47	54 59	54 11	53 23	52 33	51 44	50 54	50 03	49 12	48 21	47 29	6	40
6	50	55 11	54 24	53 38	52 51	52 03	51 16	50 28	49 39	48 50	48 00	47 11	46 21	6	50
7	00	53 46	53 01	52 15	51 29	50 43	49 56	49 09	48 22	47 34	46 46	45 58	45 09	7	00
7	10	52 19	51 35	50 51	50 07	49 21	48 35	47 50	47 04	46 17	45 30	44 45	43 57	7	10
7	20	50 52	50 08	49 26	48 42	47 58	47 15	46 30	45 45	45 00	44 15	43 30	42 43	7	20
7	30	49 24	48 41	47 59	47 16	46 34	45 51	45 08	44 25	43 41	42 57	42 13	41 28	7	30
7	40	47 53	47 12	46 32	45 50	45 09	44 26	43 45	43 03	42 21	41 38	40 56	40 12	7	40
7	50	46 21	45 41	45 02	44 21	43 42	43 01	42 21	41 40	40 59	40 18	39 37	38 54	7	50
8	00	44 47	44 09	43 31	42 52	42 12	41 34	40 55	40 15	39 35	38 55	38 15	37 34	8	00
8	10	43 13	42 36	41 58	41 20	40 43	40 05	39 27	38 49	38 10	37 32	36 54	36 15	8	10
8	20	41 37	41 00	40 25	39 48	39 12	38 35	37 58	37 21	36 45	36 06	35 30	34 52	8	20
8	30	39 59	39 23	38 48	38 13	37 38	37 03	36 28	35 52	35 17	34 41	34 04	33 28	8	30
8	40	38 19	37 45	37 11	36 37	36 04	35 30	34 56	34 22	33 48	33 13	32 39	32 04	8	40
8	50	36 38	36 05	35 33	35 00	34 29	33 56	33 23	32 50	32 17	31 44	31 12	30 39	8	50
9	00	34 54	34 22	33 52	33 21	32 50	32 18	31 48	31 16	30 45	30 13	29 42	29 11	9	00
9	10	33 10	32 39	32 10	31 40	31 10	30 40	30 12	29 42	29 12	28 42	28 12	27 42	9	10
9	20	31 23	30 54	30 27	29 59	29 30	29 02	28 34	28 05	27 37	27 09	26 40	26 11	9	20
9	30	29 35	29 08	28 42	28 15	27 48	27 21	26 55	26 28	26 01	25 33	25 07	24 40	9	30
9	40	27 45	27 20	26 55	26 29	26 04	25 38	25 14	24 48	24 24	23 58	23 33	23 07	9	40
9	50	25 54	25 30	25 06	24 43	24 19	23 56	23 32	23 08	22 45	22 21	21 57	21 34	9	50
10	00	24 01	23 39	23 17	22 55	22 33	22 11	21 49	21 27	21 05	20 43	20 21	19 59	10	00
10	10	22 07	21 46	21 26	21 06	20 45	20 25	20 04	19 44	19 24	19 04	18 43	18 22	10	10
10	20	20 12	19 52	19 34	19 15	18 57	18 38	18 19	18 01	17 42	17 23	17 05	16 46	10	20
10	30	18 14	17 57	17 40	17 24	17 06	16 49	16 32	16 16	15 59	15 42	15 25	15 08	10	30
10	40	16 16	16 00	15 45	15 30	15 15	15 00	14 45	14 30	14 15	14 00	13 45	13 29	10	40
10	50	14 17	14 03	13 49	13 36	13 22	13 09	12 56	12 43	12 30	12 16	12 04	11 50	10	50
11	00	12 16	12 04	11 53	11 41	11 30	1								

AZIMUTH OR TRUE BEARING.

LATITUDE 43°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 43°.												
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°
h	m.	o	o	o	o	o	o	o	o	o	o	o	o	h	m.	o	o	o	o	o	o	o	o	o	o	o	o
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
	10	18 26	15 15	12 55	11 08	9 44	8 35	7 39	6 51	6 11	5 36	5 06	4 39		10	18 26	15 15	12 55	11 08	9 44	8 35	7 39	6 51	6 11	5 36	5 06	4 39
	20	33 16	28 18	24 23	21 17	18 45	16 40	14 55	13 25	12 09	11 02	10 04	9 12		20	33 16	28 18	24 23	21 17	18 45	16 40	14 55	13 25	12 09	11 02	10 04	9 12
	30	43 48	38 19	33 44	29 54	26 40	23 55	21 33	19 31	17 43	16 10	14 48	13 33		30	43 48	38 19	33 44	29 54	26 40	23 55	21 33	19 31	17 43	16 10	14 48	13 33
	40	51 01	45 40	40 59	36 53	33 18	30 09	27 24	24 58	22 49	20 55	19 12	17 39		40	51 01	45 40	40 59	36 53	33 18	30 09	27 24	24 58	22 49	20 55	19 12	17 39
	50	55 56	50 58	46 27	42 22	38 42	35 24	32 25	29 45	27 21	25 11	23 14	21 26		50	55 56	50 58	46 27	42 22	38 42	35 24	32 25	29 45	27 21	25 11	23 14	21 26
1	00	59 20	54 48	50 34	46 38	43 02	39 41	36 39	33 52	31 18	28 59	26 50	24 52	1	00	59 20	54 48	50 34	46 38	43 02	39 41	36 39	33 52	31 18	28 59	26 50	24 52
	10	61 43	57 35	53 40	49 58	46 28	43 13	40 11	37 21	34 43	32 18	30 02	27 57		10	61 43	57 35	53 40	49 58	46 28	43 13	40 11	37 21	34 43	32 18	30 02	27 57
	20	63 24	59 38	56 00	52 31	49 12	46 03	43 05	40 17	37 38	35 10	32 51	30 41		20	63 24	59 38	56 00	52 31	49 12	46 03	43 05	40 17	37 38	35 10	32 51	30 41
	30	64 33	61 07	57 44	54 29	51 22	48 21	45 28	42 43	40 07	37 39	35 18	33 06		30	64 33	61 07	57 44	54 29	51 22	48 21	45 28	42 43	40 07	37 39	35 18	33 06
	40	65 19	62 09	59 03	56 00	53 02	50 10	47 25	44 45	42 11	39 45	37 26	35 12		40	65 19	62 09	59 03	56 00	53 02	50 10	47 25	44 45	42 11	39 45	37 26	35 12
	50	65 49	62 53	59 59	57 09	54 22	51 37	48 59	46 25	43 56	41 32	39 14	37 01		50	65 49	62 53	59 59	57 09	54 22	51 37	48 59	46 25	43 56	41 32	39 14	37 01
2	00	66 06	63 22	60 40	57 59	55 22	52 47	50 14	47 46	45 22	43 02	40 46	38 36	2	00	66 06	63 22	60 40	57 59	55 22	52 47	50 14	47 46	45 22	43 02	40 46	38 36
	10	66 12	63 38	61 06	58 37	55 07	53 39	51 14	48 52	46 33	44 17	42 04	39 56		10	66 12	63 38	61 06	58 37	55 07	53 39	51 14	48 52	46 33	44 17	42 04	39 56
	20	66 09	63 46	61 22	59 00	56 40	54 19	52 00	49 44	47 29	45 19	43 09	41 03		20	66 09	63 46	61 22	59 00	56 40	54 19	52 00	49 44	47 29	45 19	43 09	41 03
	30	66 00	63 44	61 29	59 15	57 02	54 47	52 35	50 24	48 15	46 08	44 03	42 00		30	66 00	63 44	61 29	59 15	57 02	54 47	52 35	50 24	48 15	46 08	44 03	42 00
	40	65 44	63 36	61 29	59 21	57 15	55 07	53 01	50 55	48 50	46 47	44 46	42 47		40	65 44	63 36	61 29	59 21	57 15	55 07	53 01	50 55	48 50	46 47	44 46	42 47
	50	65 24	63 23	61 22	59 21	57 20	55 18	53 17	51 17	49 17	47 19	45 21	43 24		50	65 24	63 23	61 22	59 21	57 20	55 18	53 17	51 17	49 17	47 19	45 21	43 24
3	00	64 59	63 05	61 10	59 14	57 18	55 23	53 26	51 31	49 35	47 40	45 47	43 54	3	00	64 59	63 05	61 10	59 14	57 18	55 23	53 26	51 31	49 35	47 40	45 47	43 54
	10	64 31	62 42	60 52	59 02	57 11	55 20	53 29	51 39	49 46	47 57	46 06	44 16		10	64 31	62 42	60 52	59 02	57 11	55 20	53 29	51 39	49 46	47 57	46 06	44 16
	20	63 59	62 15	60 31	58 46	56 59	55 13	53 26	51 39	49 52	48 05	46 18	44 32		20	63 59	62 15	60 31	58 46	56 59	55 13	53 26	51 39	49 52	48 05	46 18	44 32
	30	63 24	61 45	60 05	58 24	56 43	55 00	53 17	51 35	49 51	48 08	46 25	44 42		30	63 24	61 45	60 05	58 24	56 43	55 00	53 17	51 35	49 51	48 08	46 25	44 42
	40	62 48	61 15	59 37	58 00	56 23	54 43	53 05	51 25	49 46	48 06	46 26	44 46		40	62 48	61 15	59 37	58 00	56 23	54 43	53 05	51 25	49 46	48 06	46 26	44 46
	50	62 09	60 37	59 05	57 31	55 58	54 23	52 48	51 12	49 36	47 59	46 23	44 45		50	62 09	60 37	59 05	57 31	55 58	54 23	52 48	51 12	49 36	47 59	46 23	44 45
4	00	61 27	59 59	58 30	57 01	55 31	53 59	52 27	50 55	49 22	47 48	46 14	44 40	4	00	61 27	59 59	58 30	57 01	55 31	53 59	52 27	50 55	49 22	47 48	46 14	44 40
	10	60 44	59 19	57 53	56 27	55 00	53 32	52 03	50 33	49 03	47 33	46 02	44 31		10	60 44	59 19	57 53	56 27	55 00	53 32	52 03	50 33	49 03	47 33	46 02	44 31
	20	59 58	58 36	57 14	55 51	54 27	53 02	51 36	50 09	48 43	47 15	45 47	44 17		20	59 58	58 36	57 14	55 51	54 27	53 02	51 36	50 09	48 43	47 15	45 47	44 17
	30	59 11	57 52	56 32	55 12	53 50	52 28	51 06	49 42	48 18	46 53	45 28	44 01		30	59 11	57 52	56 32	55 12	53 50	52 28	51 06	49 42	48 18	46 53	45 28	44 01
	40	58 22	57 06	55 49	54 31	53 13	51 53	50 33	49 12	47 50	46 28	45 05	43 41		40	58 22	57 06	55 49	54 31	53 13	51 53	50 33	49 12	47 50	46 28	45 05	43 41
	50	57 31	56 17	55 03	53 47	52 32	51 15	49 57	48 38	47 19	46 00	44 40	43 18		50	57 31	56 17	55 03	53 47	52 32	51 15	49 57	48 38	47 19	46 00	44 40	43 18
5	00	56 39	55 28	54 15	53 02	51 50	50 35	49 20	48 03	46 47	45 29	44 11	42 52	5	00	56 39	55 28	54 15	53 02	51 50	50 35	49 20	48 03	46 47	45 29	44 11	42 52
	10	55 46	54 36	53 27	52 16	51 05	49 52	48 39	47 25	46 12	44 56	43 40	42 24		10	55 46	54 36	53 27	52 16	51 05	49 52	48 39	47 25	46 12	44 56	43 40	42 24
	20	55 51	54 43	53 36	52 27	51 17	50 18	49 08	47 57	46 46	45 34	44 20	43 06		20	55 51	54 43	53 36	52 27	51 17	50 18	49 08	47 57	46 46	45 34	44 20	43 06
	30	55 53	54 48	53 43	52 36	51 30	50 31	49 21	48 13	47 03	45 53	44 42	43 31		30	55 53	54 48	53 43	52 36	51 30	50 31	49 21	48 13	47 03	45 53	44 42	43 31
	40	55 55	54 52	53 48	52 43	51 38	50 39	49 34	48 28	47 21	46 14	45 06	43 54		40	55 55	54 52	53 48	52 43	51 38	50 39	49 34	48 28	47 21	46 14	45 06	43 54
	50	51 56	50 55	49 53	48 50	47 48	46 43	45 38	44 33	43 28	42 21	41 13	40 04		50	51 56	50 55	49 53	48 50	47 48	46 43	45 38	44 33	43 28	42 21	41 13	40 04
6	00	50 55	49 56	48 55	47 55	46 54	45 51	44 48	43 45	42 41	41 36	40 31	39 25	6	00	50 55	49 56	48 55	47 55	46 54	45 51	44 48	43 45	42 41	41 36	40 31	39 25
	10	49 52	48 55	47 56	46 57	45 59	44 58	43 57	42 55	41 52	40 50	39 46	38 42		10	49 52	48 55	47 56	46 57	45 59	44 58	43 57	42 55	41 52			

AZIMUTH OR TRUE BEARING.

LATITUDE 43°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 43°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	4 16	3 54	3 36	3 18	3 03	2 49	2 36	2 24	2 13	2 02	1 53		10	
	20	8 26	7 45	7 08	6 34	6 04	5 35	5 10	4 46	4 24	4 04	3 45		20	
	30	12 28	11 38	10 34	9 46	9 01	8 19	7 41	7 07	6 34	6 04	5 35		30	
	40	16 16	15 00	13 51	12 48	11 52	10 58	10 09	9 23	8 41	8 01	7 24		40	
	50	19 48	18 19	16 58	15 42	14 33	13 29	12 30	11 35	10 43	9 55	9 09		50	
1	00	23 03	21 23	19 51	18 25	17 06	15 52	14 44	13 40	12 41	11 44	10 51	1	00	
	10	26 00	24 12	22 31	20 58	19 31	18 08	16 52	15 39	14 32	13 28	12 29		10	
	20	28 40	26 46	24 58	23 18	21 43	20 14	18 51	17 32	16 18	15 08	14 02		20	
	30	31 00	29 02	27 10	25 25	23 46	22 11	20 42	19 18	17 58	16 43	15 30		30	
	40	33 05	31 04	29 09	27 21	25 38	23 59	22 25	20 56	19 31	18 11	16 54		40	
	50	34 54	32 52	30 56	29 05	27 18	25 36	24 00	22 26	20 58	19 33	18 12		50	
2	00	36 29	34 27	32 30	30 38	28 50	27 05	25 25	23 49	22 17	20 49	19 25	2	00	
	10	37 51	35 50	33 52	31 58	30 11	28 24	26 43	25 05	23 31	22 00	20 32		10	
	20	39 01	37 01	35 04	33 12	31 22	29 36	27 53	26 13	24 38	23 04	21 34		20	
	30	40 00	38 02	36 07	34 15	32 25	30 38	28 56	27 15	25 38	24 03	22 31		30	
	40	40 49	38 53	37 00	35 09	33 21	31 34	29 50	28 10	26 31	24 56	23 23		40	
	50	41 29	39 36	37 45	35 56	34 08	32 23	30 39	28 59	27 22	25 43	24 09		50	
3	00	42 01	40 11	38 21	36 34	34 49	33 04	31 22	29 40	28 02	26 25	24 51	3	00	
	10	42 27	40 39	38 52	37 07	35 22	33 39	31 57	30 18	28 40	27 02	25 27		10	
	20	42 46	41 01	39 16	37 32	35 50	34 07	32 27	30 48	29 10	27 34	26 00		20	
	30	42 58	41 15	39 34	37 52	36 12	34 32	32 52	31 14	29 38	28 02	26 27		30	
	40	43 06	41 26	39 46	38 07	36 29	34 49	33 13	31 36	30 00	28 24	26 51		40	
	50	43 08	41 31	39 53	38 17	36 40	35 03	33 28	31 52	30 18	28 43	27 10		50	
4	00	43 05	41 31	39 56	38 22	36 47	35 12	33 39	32 04	30 31	28 58	27 25	4	00	
	10	42 59	41 27	39 54	38 22	36 50	35 17	33 44	32 12	30 40	29 09	27 38		10	
	20	42 48	41 18	39 49	38 19	36 48	35 18	33 47	32 17	30 47	29 16	27 46		20	
	30	42 34	41 07	39 39	38 12	36 43	35 14	33 46	32 17	30 49	29 20	27 51		30	
	40	42 17	40 52	39 27	38 01	36 35	35 07	33 42	32 15	30 48	29 20	27 53		40	
	50	41 56	40 34	39 10	37 47	36 23	34 58	33 33	32 06	30 43	29 18	27 51		50	
5	00	41 32	40 12	38 51	37 31	36 08	34 45	33 23	31 59	30 36	29 11	27 47	5	00	
	10	41 06	39 48	38 29	37 11	35 50	34 30	33 08	31 47	30 26	29 03	27 41		10	
	20	40 37	39 21	38 04	36 47	35 30	34 11	32 52	31 32	30 12	28 51	27 31		20	
	30	40 06	38 52	37 37	36 22	35 07	33 49	32 32	31 15	29 56	28 38	27 18		30	
	40	39 31	38 20	37 07	35 54	34 41	33 26	32 11	30 55	29 39	28 21	27 04		40	
	50	38 56	37 46	36 35	35 24	34 12	33 00	31 46	30 32	29 18	28 02	26 47		50	
6	00	38 18	37 10	36 01	34 52	33 42	32 31	31 20	30 07	28 55	27 41	26 27	6	00	
	10	37 37	36 31	35 24	34 18	33 09	32 00	30 51	29 41	28 31	27 18	26 06		10	
	20	36 55	35 51	34 46	33 41	32 35	31 28	30 20	29 12	28 03	26 53	25 43		20	
	30	36 11	35 09	34 05	33 03	31 59	30 52	29 48	28 41	27 34	26 26	25 17		30	
	40	35 25	34 25	33 23	32 22	31 20	30 16	29 13	28 05	27 03	25 57	24 50		40	
	50	34 38	33 38	32 39	31 41	30 39	29 38	28 37	27 34	26 30	25 26	24 21		50	
7	00	33 47	32 51	31 54	30 56	29 57	28 58	27 58	26 57	25 55	24 54	23 50	7	00	
	10	32 57	32 02	31 06	30 10	29 14	28 16	27 19	26 19	25 20	24 19	23 18		10	
	20	32 04	31 11	30 17	29 24	28 29	27 33	26 36	25 40	24 41	23 43	22 44		20	
	30	31 10	30 19	29 27	28 35	27 42	26 48	25 54	24 58	24 03	23 05	22 08		30	
	40	30 15	29 25	28 35	27 44	26 53	26 01	25 09	24 16	23 22	22 27	21 31		40	
	50	29 17	28 30	27 41	26 53	26 03	25 13	24 23	23 32	22 40	21 47	20 53		50	
8	00	28 19	27 32	26 46	26 00	25 12	24 23	23 35	22 46	21 56	21 05	20 14	8	00	
	10	27 19	26 35	25 50	25 05	24 19	23 33	22 46	21 59	21 11	20 22	19 33		10	
	20	26 18	25 36	24 53	24 09	23 25	22 40	21 56	21 11	20 25	19 37	18 51		20	
	30	25 15	24 34	23 54	23 13	22 31	21 48	21 05	20 21	19 38	18 53	18 07		30	
	40	24 12	23 33	22 54	22 14	21 34	20 53	20 12	19 31	18 49	18 06	17 23		40	
	50	23 07	22 30	21 53	21 15	20 37	19 58	19 20	18 39	17 59	17 19	16 37		50	
9	00	22 01	21 25	20 51	20 15	19 38	19 01	18 24	17 47	17 08	16 29	15 51	9	00	
	10	20 53	20 20	19 47	19 13	18 38	18 03	17 29	16 53	16 17	15 41	15 04		10	
	20	19 46	19 14	18 43	18 11	17 38	17 06	16 33	15 58	15 25	14 50	14 15		20	
	30	18 36	18 07	17 37	17 07	16 37	16 06	15 35	15 03	14 31	13 58	13 26		30	
	40	17 27	16 59	16 31	16 03	15 34	15 05	14 36	14 07	13 37	13 06	12 35		40	
	50	16 15	15 50	15 24	14 58	14 32	14 05	13 37	13 09	12 42	12 13	11 44		50	
10	00	15 05	14 40	14 16	13 52	13 27	13 03	12 37	12 12	11 46	11 20	10 53	10	00	
	10	13 51	13 30	13 07	12 46	12 23	11 59	11 37	11 13	10 49	10 26	10 00		10	
	20	12 38	12 19	11 59	11 38	11 17	10 56	10 36	10 14	9 52	9 30	9 09		20	
	30	11 25	11 06	10 48	10 30	10 12	9 52	9 34	9 15	8 55	8 35	8 15		30	
	40	10 10	9 54	9 38	9 21	9 04	8 47	8 31	8 14	7 57	7 39	7 21		40	
	50	8 55	8 41	8 27	8 12	7 58	7 43	7 29	7 13	6 58	6 42	6 27		50	
11	00	7 39	7 27	7 15	7 02	6 50	6 37	6 25	6 12	5 59	5 46	5 33	11	00	
	10	6 24	6 14	6 03	5 53	5 43	5 32	5 22	5 11	5 00	4 49	4 38		10	
	20	5 08	5 00	4 50	4 43	4 35	4 26	4 18	4 09	4 00	3 51	3 43		20	
	30	3 50	3 45	3 38	3 32	3 26	3 20	3 14	3 06	3 00	2 53	2 47		30	
	40	2 34	2 30	2 25	2 22	2 17	2 13	2 08	2 05	2 00	1 56	1 52		40	
	50	1 18	1 15	1 13	1 11	1 09	1 07	1 04	1 02	1 00	0 58	0 56		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 44°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 44°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	°	°	°	°	°	°	°	°	°	°	°	°	h.	m.
		0	0	0	0	0	0	0	0	0	0	0	0		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
	10	173 20	173 04	172 45	172 25	172 01	171 36	171 07	170 32	169 53	169 07	168 12	167 05		10
	20	166 49	166 16	165 40	165 01	164 17	163 27	162 31	161 27	160 14	158 49	157 09	155 10		20
	30	160 30	159 44	158 52	157 57	156 55	155 46	154 29	153 02	151 23	149 30	147 20	144 48		30
	40	154 29	153 31	152 28	151 19	150 04	148 41	147 09	145 25	143 29	141 20	138 52	136 05		40
	50	148 50	147 44	146 32	145 13	143 48	142 14	140 32	138 40	136 34	134 17	131 43	128 52		50
1	00	143 34	142 22	141 03	139 38	138 06	136 27	134 39	132 41	130 33	128 13	125 41	122 53	1	00
	10	138 41	137 24	136 01	134 33	132 58	131 15	129 25	127 27	125 18	123 01	120 32	117 50		10
	20	134 12	132 51	131 26	129 55	128 20	126 36	124 47	122 49	120 43	118 29	116 07	113 33		20
	30	130 02	128 40	127 15	125 43	124 07	122 25	120 37	118 42	116 41	114 32	112 15	109 50		30
	40	126 11	124 50	123 24	121 54	120 18	118 35	116 53	115 02	113 05	111 02	108 52	106 35		40
	50	122 40	121 18	119 53	118 24	116 51	115 13	113 31	111 44	109 51	107 54	105 50	103 42		50
2	00	119 22	118 01	116 37	115 10	113 40	112 05	110 26	108 43	106 55	105 03	103 07	101 04	2	00
	10	116 18	115 00	113 35	112 12	110 44	109 12	107 37	105 58	104 14	102 28	100 37	98 42		10
	20	113 27	112 10	110 49	109 27	108 01	106 32	105 01	103 25	101 46	100 05	98 20	96 30		20
	30	110 46	109 30	108 12	106 52	105 30	104 03	102 35	101 03	99 29	97 51	96 11	94 27		30
	40	108 15	107 01	105 45	104 27	103 07	101 43	100 18	98 50	97 19	95 47	94 10	92 32		40
	50	105 52	104 40	103 26	102 10	100 52	99 32	98 10	96 45	95 18	93 49	92 17	90 43		50
3	00	103 36	102 25	101 13	100 00	98 44	97 27	96 08	94 47	93 22	91 57	90 29	89 00	3	00
	10	101 25	100 17	99 07	97 56	96 43	95 28	94 12	92 53	91 33	90 10	88 46	87 20		10
	20	99 21	98 15	97 07	95 57	94 45	93 34	92 20	91 04	89 47	88 28	87 06	85 44		20
	30	97 22	96 17	95 11	94 04	92 55	91 45	90 33	89 19	88 04	86 49	85 31	84 11		30
	40	95 27	94 23	93 20	92 14	91 07	89 58	88 49	87 39	86 26	85 12	83 57	82 41		40
	50	93 36	92 34	91 31	90 28	89 22	88 16	87 09	86 00	84 50	83 39	82 26	81 13		50
4	00	91 48	90 48	89 46	88 43	87 41	86 37	85 32	84 24	83 16	82 08	80 58	79 46	4	00
	10	90 02	89 03	88 03	87 02	86 02	84 59	83 55	82 50	81 45	80 38	79 29	78 21		10
	20	88 19	87 21	86 23	85 23	84 24	83 23	82 21	81 18	80 15	79 10	78 03	76 57		20
	30	86 37	85 41	84 44	83 47	82 48	81 48	80 49	79 47	78 46	77 42	76 39	75 34		30
	40	84 58	84 04	83 07	82 11	81 14	80 16	79 19	78 18	77 18	76 16	75 14	74 12		40
	50	83 21	82 27	81 32	80 37	79 41	78 44	77 48	76 50	75 50	74 51	73 51	72 50		50
5	00	81 43	80 51	79 57	79 04	78 09	77 14	76 18	75 21	74 24	73 26	72 27	71 28	5	00
	10	80 08	79 16	78 24	77 31	76 38	75 43	74 49	73 54	72 58	72 02	71 03	70 06		10
	20	78 33	77 41	76 50	75 59	75 07	74 14	73 20	72 27	71 32	70 37	69 41	68 46		20
	30	76 58	76 08	75 18	74 27	73 36	72 44	71 52	70 59	70 06	69 13	68 18	67 24		30
	40	75 23	74 35	73 45	72 55	72 06	71 15	70 23	69 32	68 40	67 45	66 55	66 01		40
	50	73 49	73 01	72 13	71 24	70 34	69 46	68 56	68 06	67 14	66 24	65 31	64 39		50
6	00	72 15	71 27	70 40	69 52	69 05	68 15	67 27	66 37	65 48	64 58	64 07	63 16	6	00
	10	70 39	69 53	69 06	68 20	67 33	66 45	65 58	65 10	64 21	63 32	62 42	61 53		10
	20	69 05	68 20	67 34	66 48	66 02	65 15	64 29	63 41	62 54	62 06	61 17	60 28		20
	30	67 30	66 45	65 59	65 15	64 30	63 44	62 58	62 12	61 25	60 39	59 51	59 04		30
	40	65 53	65 09	64 25	63 41	62 57	62 12	61 27	60 42	59 56	59 10	58 24	57 38		40
	50	64 16	63 33	62 50	62 06	61 23	60 39	59 55	59 11	58 27	57 42	56 56	56 11		50
7	00	62 38	61 56	61 13	60 30	59 48	59 05	58 22	57 39	56 55	56 11	55 27	54 44	7	00
	10	60 59	60 17	59 35	58 53	58 12	57 29	56 45	56 05	55 23	54 40	53 57	53 14		10
	20	59 19	58 38	57 57	57 16	56 35	55 54	55 13	54 31	53 49	53 08	52 25	51 44		20
	30	57 37	56 56	56 16	55 37	54 56	54 17	53 36	52 56	52 15	51 35	50 53	50 13		30
	40	55 53	55 14	54 35	53 56	53 17	52 37	51 58	51 19	50 40	50 00	49 19	48 40		40
	50	54 09	53 31	52 53	52 14	51 36	50 58	50 20	49 41	49 02	48 24	47 45	47 06		50
8	00	52 23	51 45	51 07	50 30	49 53	49 15	48 38	48 01	47 23	46 46	46 07	45 30	8	00
	10	50 34	49 58	49 21	48 44	48 09	47 32	46 56	46 20	45 43	45 07	44 29	43 54		10
	20	48 44	48 09	47 33	46 57	46 22	45 47	45 11	44 36	44 01	43 26	42 49	42 15		20
	30	46 53	46 17	45 43	45 08	44 35	44 00	43 25	42 52	42 18	41 43	41 08	40 34		30
	40	44 59	44 25	43 51	43 17	42 45	42 12	41 38	41 05	40 32	39 59	39 26	38 53		40
	50	43 02	42 30	41 57	41 25	40 54	40 21	39 49	39 17	38 44	38 13	37 41	37 10		50
9	00	41 05	40 32	40 01	39 30	39 00	38 28	37 57	37 27	36 56	36 25	35 55	35 25	9	00
	10	39 03	38 33	38 03	37 33	37 04	36 34	36 04	35 35	35 05	34 37	34 07	33 38		10
	20	37 02	36 32	36 04	35 35	35 06	34 38	34 10	33 41	33 13	32 45	32 17	31 49		20
	30	34 56	34 28	34 00	33 34	33 07	32 39	32 13	31 45	31 19	30 53	30 26	30 00		30
	40	32 49	32 23	31 57	31 31	31 05	30 39	30 13	29 49	29 23	28 58	28 33	28 08		40
	50	30 40	30 15	29 50	29 26	29 01	28 38	28 13	27 50	27 26	27 02	26 38	26 15		50
10	00	28 29	28 05	27 42	27 19	26 56	26 34	26 12	25 49	25 26	25 05	24 42	24 21	10	00
	10	26 15	25 53	25 31	25 10	24 49	24 28	24 07	23 46	23 26	23 05	22 44	22 25		10
	20	23 59	23 39	23 19	22 59	22 40	22 21	22 01	21 43	21 23	21 04	20 45	20 27		20
	30	21 41	21 24	21 05	20 47	20 30	20 12	19 54	19 37	19 20	19 03	18 46	18 29		30
	40	19 22	19 05	18 49	18 33	18 17	18 01	17 45	17 29	17 14	16 59	16 44	16 29		40
	50	17 01	16 46	16 32	16 17	16 03	15 49	15 36	15 22	15 08	14 54	14 40	14 28		50
11	00	14 38	14 26	14 12	14 00	13 48									

AZIMUTH OR TRUE BEARING.

LATITUDE 44°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 44°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.			
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.		
		0	0	0	0	0	0	0	0	0	0	0	0				
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00		
	10	165 43	163 59	161 43	158 38	154 14	147 34	136 43	118 00	89 08	59 50	40 36	29 24	0	10		
	20	152 46	149 50	146 09	141 29	135 25	127 26	116 58	103 41	88 16	72 36	58 45	47 41	0	20		
	30	141 50	138 21	134 09	129 08	123 06	115 55	107 27	97 49	87 24	76 47	66 43	57 39	0	30		
	40	132 54	129 18	125 07	120 20	114 52	108 42	101 51	94 24	86 31	78 31	70 43	63 19	0	40		
	50	125 42	122 10	118 13	113 51	109 00	103 44	98 02	91 57	85 39	79 15	72 52	66 42	0	50		
1	00	119 49	116 29	112 50	108 53	104 36	100 01	95 09	90 02	84 46	79 25	74 04	68 48	1	00		
	10	114 56	111 50	108 29	104 53	101 05	97 03	92 49	88 25	83 54	79 18	74 40	70 06	1	10		
	20	110 50	107 57	104 52	101 37	98 11	94 35	90 51	86 59	83 01	78 59	74 55	70 53	1	20		
	30	107 18	104 37	101 46	98 48	95 42	92 28	89 07	85 39	82 08	78 33	74 55	71 17	1	30		
	40	104 12	101 43	99 05	96 21	93 30	90 35	87 33	84 26	81 15	78 00	74 44	71 27	1	40		
	50	101 27	99 07	96 41	94 10	91 34	88 52	86 05	83 15	80 21	77 24	74 25	71 25	1	50		
2	00	98 58	96 48	94 31	92 11	89 46	87 17	84 43	82 07	79 27	76 45	74 00	71 15	2	00		
	10	96 43	94 40	92 33	90 22	88 06	85 48	83 26	81 01	78 33	76 03	73 31	70 57	2	10		
	20	94 37	92 42	90 42	88 39	86 33	84 23	82 12	79 56	77 39	75 19	72 57	70 34	2	20		
	30	92 41	90 51	88 59	87 03	85 05	83 03	80 59	78 53	76 44	74 33	72 17	70 06	2	30		
	40	90 51	89 07	87 20	85 31	83 39	81 45	79 48	77 50	75 49	73 45	71 41	69 36	2	40		
	50	89 07	87 28	85 47	84 03	82 17	80 30	78 40	76 47	74 53	72 57	70 59	69 01	2	50		
3	00	87 27	85 53	84 17	82 38	80 58	79 16	77 31	75 45	73 57	72 07	70 15	68 23	3	00		
	10	85 51	84 22	82 50	81 16	79 41	77 03	74 23	71 43	73 00	71 16	69 30	67 43	3	10		
	20	84 19	82 53	81 25	79 56	78 25	76 52	75 17	73 41	72 03	70 24	68 43	67 01	3	20		
	30	82 50	81 28	80 03	78 37	77 10	75 41	74 11	72 39	71 05	69 31	67 54	66 17	3	30		
	40	81 22	80 03	78 42	77 20	75 56	74 31	73 05	71 37	70 07	68 35	67 04	65 32	3	40		
	50	79 57	78 42	77 23	76 04	74 44	73 21	71 58	70 35	69 08	67 41	66 13	64 44	3	50		
4	00	78 34	77 20	76 05	74 49	73 31	72 12	70 52	69 32	68 09	66 45	65 20	63 55	4	00		
	10	77 10	75 59	74 47	73 33	72 18	71 03	69 46	68 28	67 08	65 48	64 26	63 05	4	10		
	20	75 49	74 40	73 31	72 19	71 07	69 54	68 40	67 24	66 08	64 50	63 32	62 13	4	20		
	30	74 28	73 21	72 14	71 05	69 55	68 44	67 33	66 20	65 06	63 51	62 35	61 19	4	30		
	40	73 08	72 04	70 57	69 50	68 43	67 35	66 25	65 15	64 04	62 52	61 38	60 25	4	40		
	50	71 48	70 45	69 41	68 37	67 31	66 25	65 18	64 09	63 01	61 51	60 39	59 28	4	50		
5	00	70 27	69 26	68 24	67 22	66 18	65 14	64 09	63 03	61 56	60 48	59 40	58 31	5	00		
	10	69 07	68 09	67 08	66 07	65 06	64 04	63 00	61 57	60 51	59 46	58 39	57 32	5	10		
	20	67 48	66 50	65 51	64 52	63 52	62 52	61 51	60 48	59 46	58 42	57 38	56 33	5	20		
	30	66 28	65 32	64 34	63 37	62 39	61 40	60 43	59 40	58 39	57 37	56 36	55 32	5	30		
	40	65 06	64 13	63 17	62 20	61 24	60 27	59 29	58 30	57 31	56 31	55 30	54 30	5	40		
	50	63 46	62 53	61 59	61 04	60 10	59 13	58 17	57 20	56 23	55 24	54 26	53 26	5	50		
6	00	62 24	61 32	60 40	59 47	58 53	57 59	57 04	56 09	55 13	54 16	53 19	52 22	6	00		
	10	61 02	60 12	59 20	58 28	57 36	56 44	55 51	54 57	54 02	53 07	52 11	51 15	6	10		
	20	59 39	58 51	58 00	57 09	56 19	55 28	54 35	53 43	52 50	51 57	51 02	50 08	6	20		
	30	58 15	57 28	56 39	55 49	54 59	54 10	53 19	52 28	51 37	50 45	49 53	49 00	6	30		
	40	56 51	56 04	55 17	54 28	53 40	52 51	52 02	51 13	50 23	49 32	48 41	47 50	6	40		
	50	55 25	54 39	53 53	53 07	52 20	51 32	50 44	49 56	49 07	48 18	47 29	46 39	6	50		
7	00	53 59	53 15	52 29	51 44	50 58	50 12	49 25	48 38	47 50	47 03	46 15	45 27	7	00		
	10	52 30	51 47	51 03	50 19	49 34	48 50	48 04	47 18	46 33	45 46	45 00	44 13	7	10		
	20	51 01	50 19	49 37	48 53	48 10	47 26	46 42	45 58	45 13	44 29	43 44	42 58	7	20		
	30	49 31	48 50	48 08	47 27	46 45	46 03	45 19	44 36	43 53	43 10	42 25	41 42	7	30		
	40	47 59	47 20	46 39	45 58	45 18	44 37	43 55	43 13	42 31	41 49	41 07	40 24	7	40		
	50	46 27	45 48	45 09	44 28	43 49	43 10	42 29	41 49	41 08	40 27	39 47	39 05	7	50		
8	00	44 52	44 14	43 37	42 58	42 19	41 40	41 02	40 23	39 44	39 04	38 24	37 45	8	00		
	10	43 17	42 40	42 03	41 26	40 49	40 11	39 34	38 56	38 18	37 40	37 01	36 23	8	10		
	20	41 39	41 04	40 28	39 52	39 16	38 41	38 04	37 28	36 51	36 14	35 37	35 00	8	20		
	30	40 00	39 26	38 52	38 17	37 41	37 07	36 33	35 57	35 22	34 47	34 11	33 36	8	30		
	40	38 19	37 47	37 13	36 40	36 06	35 34	34 59	34 26	33 52	33 18	32 44	32 10	8	40		
	50	36 38	36 06	35 34	35 02	34 30	33 58	33 25	32 53	32 21	31 48	31 16	30 44	8	50		
9	00	34 54	34 23	33 53	33 22	32 51	32 20	31 50	31 19	30 48	30 17	29 46	29 15	9	00		
	10	33 08	32 39	32 11	31 41	31 12	30 43	30 13	29 44	29 14	28 45	28 15	27 46	9	10		
	20	31 21	30 54	30 26	29 58	29 31	29 04	28 35	28 07	27 39	27 12	26 43	26 15	9	20		
	30	29 33	29 07	28 41	28 14	27 48	27 22	26 55	26 29	26 03	25 36	25 09	24 43	9	30		
	40	27 43	27 18	26 53	26 28	26 04	25 39	25 14	24 50	24 25	24 00	23 35	23 10	9	40		
	50	25 51	25 28	25 05	24 41	24 18	23 56	23 32	23 09	22 46	22 23	21 59	21 37	9	50		
10	00	23 59	23 37	23 16	22 54	22 32	22 11	21 49	21 27	21 05	20 44	20 22	20 01	10	00		
	10	22 04	21 45	21 24	21 04	20 44	20 24	20 04	19 44	19 24	19 05	18 44	18 24	10	10		
	20	20 08	19 50	19 32	19 14	18 55	18 37	18 18	18 00	17 42	17 24	17 05	16 47	10	20		
	30	18 11	17 55	17 38	17 22	17 05	16 48	16 31	16 15	15 59	15 43	15 26	15 09	10	30		
	40	16 13	15 59	15 43	15 28	15 13	14 59	14 44	14 29	14 14	14 00	13 45	13 30	10	40		
	50	14 14	14 01	13 48	13 35	13 22	13 09	12 56	12 42	12 30	12 17	12 04	11 51	10	50		
11	00	12 14	12 02</														

AZIMUTH OR TRUE BEARING.

LATITUDE 44°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 44°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	°	'	°	'	°	'	°	'	°	'	°	'	h.	m.
		0	00	0	00	0	00	0	00	0	00	0	00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	22 35	18 06	14 57	12 40	10 53	9 31	8 23	7 28	6 41	6 01	5 27	4 57		10
	20	39 12	32 45	27 48	23 56	20 51	18 22	16 17	14 34	13 06	11 50	10 44	9 48		20
	30	49 50	43 15	37 45	33 11	29 21	26 09	23 24	21 05	19 04	17 18	15 46	14 23		30
	40	56 32	50 27	45 05	40 23	36 16	32 42	29 34	26 51	24 26	22 18	20 24	18 42		40
	50	60 52	55 24	50 24	45 51	41 45	38 04	34 45	31 47	29 09	26 44	24 36	22 38		50
1	00	63 42	58 50	54 16	49 59	46 01	42 23	39 02	36 00	33 13	30 39	28 20	26 11	1	00
	10	65 37	61 14	57 04	53 06	49 21	45 50	42 33	39 30	36 40	34 02	31 37	29 21		10
	20	66 52	62 56	59 08	55 27	51 55	48 34	45 23	42 24	39 35	36 56	34 27	32 08		20
	30	67 41	64 07	60 37	57 13	53 54	50 45	47 42	44 47	42 01	39 24	36 55	34 34		30
	40	68 10	64 54	61 42	58 32	55 26	52 27	49 32	46 44	44 03	41 29	39 01	36 41		40
	50	68 25	65 25	62 26	59 29	56 35	53 46	51 00	48 19	45 44	43 13	40 48	38 28		50
2	00	68 28	65 41	62 55	60 10	57 27	54 47	52 09	49 35	47 05	44 39	42 18	40 01	2	00
	10	68 22	65 47	63 12	60 38	58 04	55 33	53 03	50 36	48 12	45 50	43 33	41 19		10
	20	68 10	65 44	63 19	60 54	58 29	55 55	53 43	51 23	49 04	46 48	44 35	42 24		20
	30	67 51	65 34	63 18	61 02	58 44	56 25	54 13	51 58	49 45	47 34	45 25	43 18		30
	40	67 28	65 19	63 10	61 02	58 51	56 41	54 32	52 24	50 16	48 09	46 05	44 01		40
	50	67 00	64 59	62 56	60 54	58 51	56 47	54 43	52 40	50 37	48 36	46 36	44 36		50
3	00	66 29	64 34	62 38	60 41	58 43	56 46	54 48	52 50	50 52	48 55	46 59	45 03	3	00
	10	65 54	64 05	62 14	60 24	58 31	56 38	54 46	52 52	50 59	49 07	47 14	45 22		10
	20	65 18	63 34	61 48	60 02	58 14	56 27	54 38	52 50	51 01	49 13	47 24	45 35		20
	30	64 38	62 59	61 48	59 36	57 53	56 10	54 26	52 42	50 57	49 12	47 27	45 42		30
	40	63 56	62 22	60 45	59 07	57 29	55 49	54 10	52 29	50 48	49 06	47 26	45 44		40
	50	63 13	61 42	60 09	58 35	57 00	55 25	53 49	52 12	50 37	48 57	47 19	45 40		50
4	00	62 28	60 59	59 31	58 01	56 30	54 58	53 24	51 51	50 17	48 43	47 08	45 32	4	00
	10	61 40	60 15	58 50	57 23	55 55	54 27	52 57	51 28	49 57	48 25	46 53	45 20		10
	20	60 51	59 29	58 07	56 44	55 19	53 53	52 27	51 00	49 33	48 04	46 36	45 05		20
	30	60 01	58 42	57 23	56 02	54 40	53 18	51 54	50 31	49 05	47 39	46 13	44 46		30
	40	59 09	57 53	56 36	55 18	53 59	52 39	51 18	49 58	48 36	47 12	45 48	44 25		40
	50	58 15	57 02	55 48	54 32	53 15	51 59	50 41	49 22	48 03	46 42	45 21	43 59		50
5	00	57 20	56 09	54 57	53 44	52 30	51 16	50 00	48 44	47 27	46 09	44 51	43 31	5	00
	10	56 24	55 15	54 05	52 54	51 43	50 32	49 18	48 04	46 49	45 34	44 17	43 00		10
	20	55 26	54 20	53 12	52 04	50 54	49 44	48 33	47 22	46 09	44 56	43 42	42 27		20
	30	54 27	53 23	52 17	51 11	50 03	48 56	47 47	46 38	45 27	44 17	43 05	41 52		30
	40	53 27	52 24	51 21	50 16	49 11	48 05	46 58	45 51	44 43	43 34	42 25	41 14		40
	50	52 26	51 25	50 23	49 20	48 17	47 14	46 09	45 04	43 57	42 50	41 43	40 35		50
6	00	51 22	50 23	49 24	48 23	47 22	46 20	45 17	44 14	43 09	42 04	40 59	39 52	6	00
	10	50 18	49 21	48 23	47 24	46 24	45 24	44 23	43 22	42 19	41 17	40 13	39 09		10
	20	49 13	48 15	47 21	46 24	45 25	44 27	43 28	42 29	41 30	40 27	39 26	38 23		20
	30	48 06	47 12	46 17	45 22	44 26	43 29	42 32	41 34	40 35	39 36	38 37	37 36		30
	40	46 57	46 05	45 12	44 19	43 24	42 30	41 34	40 37	39 41	38 43	37 45	36 46		40
	50	45 48	44 57	44 06	43 14	42 21	41 28	40 34	39 40	38 44	37 49	36 53	35 56		50
7	00	44 38	43 48	42 58	42 08	41 17	40 25	39 33	38 40	37 46	36 52	35 59	35 04	7	00
	10	43 24	42 37	41 49	41 00	40 10	39 20	38 29	37 39	36 47	35 55	35 02	34 09		10
	20	42 11	41 24	40 38	39 51	39 03	38 15	37 25	36 37	35 46	34 56	34 06	33 14		20
	30	40 57	40 12	39 27	38 41	37 54	37 08	36 21	35 33	34 44	33 56	33 07	32 16		30
	40	39 40	38 57	38 13	37 29	36 44	35 59	35 13	34 28	33 41	32 54	32 06	31 18		40
	50	38 23	37 41	36 59	36 17	35 33	34 49	34 05	33 21	32 36	31 50	31 05	30 19		50
8	00	37 04	36 23	35 43	35 02	34 20	33 37	32 55	32 13	31 29	30 46	30 01	29 17	8	00
	10	35 45	35 05	34 25	33 46	33 06	32 25	31 45	31 03	30 22	29 41	28 58	28 15		10
	20	34 22	33 45	33 08	32 20	31 51	31 11	30 33	29 52	29 13	28 33	27 52	27 11		20
	30	33 00	32 24	31 47	31 11	30 33	29 56	29 19	28 41	28 03	27 24	26 45	26 06		30
	40	31 36	31 01	30 26	29 51	29 16	28 40	28 03	27 28	26 51	26 14	25 37	25 00		40
	50	30 10	29 37	29 04	28 30	27 56	27 23	26 48	26 14	25 38	25 03	24 28	23 53		50
9	00	28 44	28 12	27 41	27 08	26 36	26 04	25 31	24 58	24 25	23 51	23 18	22 43	9	00
	10	27 16	26 45	26 15	25 45	25 15	24 44	24 13	23 42	23 10	22 38	22 07	21 34		10
	20	25 46	25 19	24 50	24 21	23 52	23 23	22 54	22 24	21 54	21 25	20 54	20 24		20
	30	24 16	23 49	23 22	22 56	22 28	22 01	21 33	21 06	20 37	20 10	19 41	19 12		30
	40	22 45	22 19	21 55	21 29	21 03	20 38	20 12	19 46	19 19	18 53	18 26	18 00		40
	50	21 12	20 49	20 26	20 01	19 37	19 13	18 49	18 25	18 00	17 36	17 11	16 46		50
10	00	19 39	19 16	18 55	18 34	18 11	17 49	17 26	17 04	16 41	16 18	15 56	15 32	10	00
	10	18 04	17 43	17 24	17 04	16 43	16 22	16 02	15 42	15 21	14 59	14 38	14 16		10
	20	16 29	16 11	15 52	15 34	15 15	14 57	14 38	14 19	13 59	13 40	13 21	13 02		20
	30	14 53	14 36	14 20	14 03	13 46	13 29	13 12	12 55	12 38	12 20	12 03	11 46		30
	40	13 16	13 01	12 45	12 31	12 16	12 01	11 46	11 31	11 15	10 59	10 45	10 29		40
	50	11 38	11 24	11 10	10 58	10 45	10 32	10 19	10 06	9 52	9 39	9 25	9 11		50
11	00	9 59	9 48	9 36	9 25	9 14	9 02	8 51	8 40	8 28	8 16	8 05	7 53	11	00
	10	8 20	8 11												

AZIMUTH OR TRUE BEARING.

LATITUDE 44°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 44°.			
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0 /		0 /		0 /		0 /		0 /		0 /		h.	m.
		0	00	0	00	0	00	0	00	0	00	0	00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	4 31	4 08	3 47	3 29	3 11	2 57	2 42	2 30	2 18	2 07	1 56	1 56	0	10
0	20	8 57	8 12	7 31	6 55	6 21	5 51	5 24	4 58	4 35	4 13	3 53	3 53	0	20
0	30	13 11	12 05	11 07	10 15	9 25	8 42	8 01	7 24	6 49	6 17	5 47	5 47	0	30
0	40	17 10	15 48	14 33	13 25	12 23	11 26	10 33	9 45	9 01	8 19	7 40	7 40	0	40
0	50	20 52	19 16	17 47	16 26	15 12	14 03	13 00	12 01	11 07	10 15	9 28	9 28	0	50
1	00	24 13	22 26	20 47	19 16	17 51	16 33	15 19	14 11	13 08	12 09	11 13	11 13	1	00
1	10	27 16	25 20	23 32	21 52	20 19	18 52	17 31	16 14	15 03	13 57	12 53	12 53	1	10
1	20	29 58	27 56	26 02	24 15	22 36	21 02	19 33	18 10	16 52	15 38	14 29	14 29	1	20
1	30	32 21	30 16	28 18	26 26	24 40	23 02	21 27	19 58	18 35	17 15	16 00	16 00	1	30
1	40	34 26	32 19	30 18	28 23	26 34	24 51	23 12	21 38	20 09	18 46	17 25	17 25	1	40
1	50	36 15	34 07	32 05	30 07	28 16	26 30	24 47	23 10	21 38	20 10	18 45	18 45	1	50
2	00	37 47	35 41	33 39	31 41	29 47	27 59	26 15	24 35	22 59	21 28	19 59	19 59	2	00
2	10	39 09	37 02	35 00	33 03	31 09	29 19	27 33	25 51	24 13	22 38	21 08	21 08	2	10
2	20	40 16	38 12	36 12	34 15	32 21	30 30	28 43	27 00	25 22	23 45	22 10	22 10	2	20
2	30	41 13	39 11	37 13	35 16	33 23	31 33	29 46	28 01	26 21	24 43	23 08	23 08	2	30
2	40	42 00	40 01	38 04	36 11	34 17	32 28	30 41	28 56	27 15	25 36	23 59	23 59	2	40
2	50	42 38	40 41	38 48	36 55	35 03	33 15	31 28	29 44	28 02	26 23	24 46	24 46	2	50
3	00	43 08	41 14	39 23	37 32	35 43	33 55	32 10	30 26	28 44	27 05	25 28	25 28	3	00
3	10	43 30	41 40	39 51	38 02	36 15	34 30	32 45	31 01	29 21	27 42	26 04	26 04	3	10
3	20	43 47	41 59	40 12	38 26	36 41	34 57	33 14	31 32	29 52	28 14	26 36	26 36	3	20
3	30	43 57	42 12	40 29	38 44	37 01	35 20	33 38	31 57	30 18	28 41	27 03	27 03	3	30
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3	50	44 01	42 23	40 44	39 04	37 26	35 48	34 10	32 33	30 57	29 21	27 45	27 45	3	50
4	00	43 57	42 21	40 45	39 08	37 32	35 56	34 19	32 43	31 09	29 34	28 00	28 00	4	00
4	10	43 48	42 15	40 41	39 06	37 32	35 59	34 24	32 51	31 17	29 44	28 11	28 11	4	10
4	20	43 34	42 04	40 33	39 01	37 29	35 58	34 26	32 54	31 22	29 50	28 19	28 19	4	20
4	30	43 18	41 50	40 22	38 53	37 23	35 54	34 23	32 53	31 22	29 53	28 22	28 22	4	30
4	40	42 59	41 33	40 07	38 40	37 13	35 46	34 17	32 49	31 21	29 52	28 23	28 23	4	40
4	50	42 37	41 12	39 49	38 24	37 00	35 35	34 08	32 42	31 16	29 49	28 21	28 21	4	50
5	00	42 11	40 49	39 28	38 05	36 42	35 20	33 56	32 31	31 07	29 42	28 15	28 15	5	00
5	10	41 42	40 23	39 04	37 45	36 23	35 03	33 40	32 18	30 55	29 33	28 08	28 08	5	10
5	20	41 12	39 55	38 38	37 20	36 01	34 43	33 22	32 01	30 41	29 19	27 58	27 58	5	20
5	30	40 39	39 23	38 09	36 54	35 37	34 20	33 02	31 43	30 24	29 05	27 44	27 44	5	30
5	40	40 02	38 51	37 38	36 24	35 10	33 55	32 38	31 22	30 05	28 47	27 28	27 28	5	40
5	50	39 26	38 15	37 05	35 52	34 40	33 27	32 13	30 58	29 43	28 27	27 10	27 10	5	50
6	00	38 46	37 37	36 29	35 19	34 09	32 58	31 45	30 32	29 19	28 05	26 50	26 50	6	00
6	10	38 03	36 57	35 51	34 43	33 35	32 26	31 15	30 05	28 53	27 42	26 28	26 28	6	10
6	20	37 20	36 15	35 11	34 05	32 59	31 52	30 43	29 35	28 25	27 15	26 04	26 04	6	20
6	30	36 34	35 32	34 30	33 25	32 20	31 15	30 09	29 03	27 55	26 47	25 37	25 37	6	30
6	40	35 46	34 46	33 46	32 43	31 41	30 38	29 33	28 29	27 23	26 17	25 09	25 09	6	40
6	50	34 58	33 59	33 00	32 01	31 00	29 59	28 56	27 53	26 50	25 45	24 40	24 40	6	50
7	00	34 07	33 11	32 13	31 15	30 17	29 18	28 17	27 16	26 14	25 11	24 08	24 08	7	00
7	10	33 15	32 20	31 25	30 28	29 32	28 35	27 36	26 37	25 37	24 37	23 35	23 35	7	10
7	20	32 21	31 28	30 35	29 40	28 46	27 50	26 53	25 56	24 58	24 00	23 00	23 00	7	20
7	30	31 25	30 34	29 43	28 51	27 58	27 04	26 09	25 14	24 18	23 21	22 23	22 23	7	30
7	40	30 29	29 39	28 50	27 59	27 08	26 17	25 24	24 31	23 36	22 41	21 45	21 45	7	40
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8	00	28 32	27 45	27 00	26 13	25 25	24 37	23 48	22 59	22 08	21 18	20 26	20 26	8	00
8	10	27 31	26 47	26 03	25 18	24 32	23 46	22 58	22 11	21 23	20 35	19 45	19 45	8	10
8	20	26 29	25 47	25 05	24 21	23 37	22 53	22 07	21 22	20 37	19 50	19 03	19 03	8	20
8	30	25 26	24 45	24 05	23 23	22 42	21 59	21 16	20 32	19 48	19 03	18 18	18 18	8	30
8	40	24 22	23 42	23 04	22 25	21 44	21 04	20 23	19 41	18 59	18 16	17 33	17 33	8	40
8	50	23 16	22 39	22 01	21 24	20 47	20 07	19 28	18 48	18 09	17 28	16 47	16 47	8	50
9	00	22 09	21 33	20 59	20 23	19 46	19 10	18 33	17 55	17 18	16 39	15 59	15 59	9	00
9	10	21 02	20 28	19 55	19 20	18 47	18 12	17 37	17 01	16 25	15 49	15 12	15 12	9	10
9	20	19 53	19 21	18 50	18 18	17 46	17 13	16 40	16 06	15 32	14 58	14 22	14 22	9	20
9	30	18 44	18 13	17 45	17 14	16 43	16 13	15 41	15 10	14 38	14 06	13 32	13 32	9	30
9	40	17 32	17 04	16 37	16 09	15 41	15 12	14 43	14 13	13 43	13 13	12 42	12 42	9	40
9	50	16 21	15 55	15 29	15 04	14 37	14 10	13 43	13 15	12 48	12 20	11 50	11 50	9	50
10	00	15 09	14 45	14 21	13 57	13 32	13 08	12 42	12 17	11 52	11 25	10 59	10 59	10	00
10	10	13 56	13 34	13 12	12 50	12 27	12 05	11 41	11 18	10 54	10 30	10 06	10 06	10	10
10	20	12 42	12 22	12 02	11 42	11 21	11 01	10 40	10 18	9 57	9 35	9 13	9 13	10	20
10	30	11 27	11 10	10 51	10 34	10 15	9 57	9 37	9 19	8 58	8 39	8 19	8 19	10	30
10	40	10 14	9 57	9 40	9 24	9 08	8 51	8 35	8 17	8 00	7 43	7 25	7 25	10	40
10	50	8 57	8 43	8 30	8 15	8 01	7 46	7 31	7 16	7 01	6 46	6 30	6 30	10	50
11	00	7 42	7 29	7 17	7										

AZIMUTH OR TRUE BEARING.

LATITUDE 45°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 45°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	°	′	″	°	′	″	°	′	″	°	′	″	h.	m.
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
	10	173 39	173 23	173 07	172 49	172 29	172 06	171 41	171 11	170 38	169 59	169 14	168 21		10
	20	167 24	166 55	166 23	165 47	165 09	164 25	163 36	162 41	161 38	160 26	159 02	157 23		20
	30	161 19	160 38	159 52	159 02	158 08	157 07	155 59	154 43	153 17	151 39	149 47	147 38		30
	40	155 32	154 39	153 42	152 40	151 32	150 18	148 56	147 24	145 42	143 47	141 38	139 12		40
	50	150 02	149 02	147 56	146 44	145 27	144 03	142 30	140 49	138 56	136 53	134 40	132 02		50
1	00	144 54	143 47	142 34	141 16	139 52	138 22	136 43	134 56	132 59	130 51	128 32	125 59	1	00
	10	140 05	138 54	137 37	136 15	134 47	133 12	131 30	129 41	127 44	125 35	123 17	120 48		10
	20	135 37	134 23	133 03	131 39	130 09	128 33	126 50	125 01	123 04	120 55	118 44	116 21		20
	30	131 29	130 13	128 51	127 26	125 56	124 19	122 37	120 50	118 56	116 53	114 44	112 27		30
	40	127 38	126 22	125 00	123 34	122 04	120 31	118 50	117 04	115 14	113 16	111 12	109 01		40
	50	124 05	122 47	121 27	120 02	118 33	117 01	115 22	113 40	111 53	110 00	108 02	105 58		50
2	00	120 46	119 29	118 08	116 44	115 18	113 47	112 12	110 34	108 50	107 02	105 09	103 11	2	00
	10	117 39	116 24	115 05	113 43	112 18	110 50	109 17	107 42	106 03	104 19	102 32	100 40		10
	20	114 45	113 30	112 13	110 53	109 31	108 05	106 36	105 04	103 29	101 49	100 07	98 21		20
	30	112 01	110 48	109 33	108 15	106 55	105 32	104 05	102 37	101 05	99 30	97 52	96 11		30
	40	109 27	108 15	107 01	105 45	104 27	103 07	101 43	100 18	98 50	97 19	95 45	94 09		40
	50	107 00	105 51	104 38	103 24	102 08	100 50	99 30	98 08	96 43	95 15	93 46	92 13		50
3	00	104 41	103 32	102 23	101 10	99 57	98 41	97 24	96 05	94 42	93 18	91 53	90 24	3	00
	10	102 28	101 21	100 12	99 02	97 52	96 38	95 23	94 06	92 47	91 26	90 04	88 39		10
	20	100 20	99 15	98 09	97 00	95 51	94 41	93 27	92 13	90 57	89 38	88 19	86 58		20
	30	98 18	97 15	96 09	95 03	93 56	92 47	91 36	90 25	89 11	87 55	86 39	85 20		30
	40	96 20	95 17	94 14	93 09	92 04	90 58	89 49	88 39	87 28	86 15	85 01	83 46		40
	50	94 25	93 25	92 23	91 20	90 16	89 11	88 05	86 58	85 48	84 37	83 26	82 13		50
4	00	92 33	91 35	90 35	89 33	88 31	87 28	86 23	85 18	84 11	83 03	81 54	80 43	4	00
	10	90 45	89 47	88 48	87 49	86 48	85 45	84 44	83 41	82 36	81 29	80 22	79 14		10
	20	89 00	88 03	87 05	86 07	85 08	84 08	83 07	82 06	81 03	79 58	78 53	77 47		20
	30	87 19	86 20	85 24	84 27	83 29	82 31	81 32	80 32	79 30	78 28	77 25	76 20		30
	40	85 34	84 40	83 45	82 49	81 53	80 56	79 57	79 00	78 00	76 58	75 55	74 55		40
	50	83 53	83 01	82 08	81 12	80 17	79 21	78 25	77 28	76 30	75 31	74 31	73 30		50
5	00	82 13	81 22	80 29	79 35	78 41	77 48	76 53	75 57	75 01	74 02	73 05	72 05	5	00
	10	80 35	79 45	78 52	78 01	77 08	76 15	75 21	74 27	73 32	72 35	71 39	70 41		10
	20	78 58	78 09	77 18	76 27	75 36	74 43	73 51	72 58	72 03	71 08	70 13	69 17		20
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	40	75 45	74 57	74 07	73 19	72 29	71 39	70 49	69 58	69 06	68 14	67 22	66 29		40
	50	74 09	73 21	72 33	71 45	70 56	70 08	69 19	68 29	67 39	66 48	65 57	65 05		50
6	00	72 32	71 45	70 59	70 12	69 24	68 36	67 48	67 00	66 10	65 20	64 30	63 39	6	00
	10	70 55	70 09	69 24	68 37	67 50	67 03	66 17	65 29	64 41	63 52	63 03	62 14		10
	20	69 18	68 34	67 48	67 03	66 17	65 32	64 45	63 59	63 12	62 24	61 37	60 48		20
	30	67 40	66 57	66 12	65 27	64 43	63 58	63 13	62 28	61 42	60 55	60 08	59 21		30
	40	66 03	65 19	64 35	63 52	63 08	62 24	61 41	60 56	60 10	59 24	58 39	57 53		40
	50	64 24	63 41	62 58	62 16	61 33	60 50	60 06	59 23	58 39	57 55	57 10	56 25		50
7	00	62 45	62 02	61 21	60 38	59 57	59 14	58 32	57 49	57 06	56 23	55 40	54 55	7	00
	10	61 03	60 22	59 41	59 00	58 19	57 38	56 57	56 14	55 32	54 50	54 08	53 25		10
	20	59 21	58 42	58 01	57 20	56 40	55 59	55 19	54 39	53 58	53 17	52 35	51 53		20
	30	57 38	57 00	56 20	55 41	55 01	54 22	53 41	53 02	52 22	51 41	51 02	50 21		30
	40	55 54	55 16	54 37	53 58	53 20	52 41	52 03	51 24	50 45	50 05	49 27	48 47		40
	50	54 09	53 31	52 53	52 16	51 38	51 00	50 22	49 45	49 06	48 28	47 50	47 11		50
8	00	52 20	51 44	51 07	50 30	49 54	49 17	48 39	48 03	47 26	46 49	46 12	45 34	8	00
	10	50 32	49 56	49 20	48 43	48 08	47 33	46 56	46 21	45 45	45 09	44 33	43 57		10
	20	48 41	48 06	47 30	46 56	46 21	45 46	45 12	44 37	44 02	43 26	42 52	42 17		20
	30	46 47	46 14	45 40	45 06	44 32	43 59	43 25	42 52	42 18	41 44	41 10	40 36		30
	40	44 53	44 20	43 47	43 14	42 41	42 09	41 36	41 05	40 32	39 58	39 26	38 53		40
	50	42 56	42 25	41 52	41 21	40 49	40 16	39 45	39 15	38 44	38 12	37 41	37 09		50
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	10	39 57	39 27	38 56	38 27	37 58	37 28	36 59	36 30	36 01	35 32	35 03	34 34		10
	20	38 54	38 25	37 56	37 27	36 58	36 29	36 01	35 33	35 04	34 35	34 06	33 37		20
	30	37 49	37 21	36 52	36 23	35 54	35 25	34 56	34 28	33 59	33 30	33 01	32 32		30
	40	36 41	36 13	35 44	35 15	34 46	34 17	33 48	33 20	32 51	32 22	31 53	31 24		40
	50	35 32	35 04	34 35	34 06	33 37	33 08	32 39	32 10	31 41	31 12	30 43	30 14		50
10	00	28 20	27 58	27 35	27 13	26 50	26 28	26 06	25 44	25 23	25 01	24 39	24 18	10	00
	10	26 07	25 45	25 23	25 05	24 44	24 23	24 02	23 42	23 22	23 01	22 41	22 22		10
	20	23 51	23 32	23 12	22 53	22 34	22 16	21 56	21 38	21 19	21 00	20 43	20 25		20
	30	21 34	21 17	20 59	20 41	20 24	20 07	19 49	19 33	19 15	18 59	18 43	18 26		30
	40	19 15	18 59	18 43	18 27	18 11	17 57	17 41	17 26	17 11	16 56	16 41	16 26		40
	50	16 55	16 40	16 26	16 12	15 58	15 45	15 32	15 18	15 05	14 51	14 39	14 25		50
11	00	14 32	14 20</												

AZIMUTH OR TRUE BEARING.

LATITUDE 45°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 45°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h. m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h. m.	o /
0 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	.....	0 00	0 00	0 00	0 00
0 10	167 15	165 53	164 11	161 57	158 54	154 35	147 58	137 10	127 51	117 20	103 54	89 07	59 25	40 04	20 10
0 20	155 26	153 04	150 10	146 31	141 54	135 51	127 51	117 20	103 54	89 07	72 18	58 17	40 04	20 10	0 30
0 30	145 08	142 12	138 43	134 32	129 33	123 30	116 15	107 43	97 50	87 21	76 35	66 20	56 20	46 20	0 40
0 40	136 26	133 16	129 39	125 29	120 41	115 11	108 59	102 01	94 27	86 28	78 20	70 23	62 35	54 47	0 50
0 50	129 13	126 03	122 29	118 32	114 09	109 17	103 55	98 08	92 00	85 34	79 03	72 35	66 20	60 10	1 00
1 00	123 11	120 07	116 46	113 07	109 07	104 48	100 09	95 14	90 03	84 41	79 14	73 47	68 10	62 35	1 10
1 10	118 07	115 12	112 04	108 42	105 05	101 14	97 09	92 51	88 24	83 47	79 06	74 25	69 44	65 03	1 20
1 20	113 47	111 03	108 08	105 02	101 45	98 17	94 39	90 51	86 55	82 54	78 48	74 39	70 20	66 01	1 30
1 30	110 02	107 28	104 46	101 54	98 54	95 46	92 29	89 05	85 55	82 00	78 21	74 39	70 40	66 41	1 40
1 40	106 44	104 20	101 49	99 10	96 24	93 33	90 34	87 29	84 19	81 05	77 48	74 28	70 40	66 41	1 50
1 50	103 49	101 33	99 11	96 44	94 12	91 33	88 49	86 01	83 08	80 11	77 11	74 09	70 40	66 41	2 00
2 00	101 10	99 02	96 50	94 32	92 11	89 44	87 13	84 36	81 59	79 16	76 31	73 41	70 40	66 41	2 10
2 10	98 45	96 45	94 40	92 32	90 20	88 03	85 42	83 19	80 51	78 21	75 48	73 13	70 40	66 41	2 20
2 20	96 31	94 37	92 41	90 39	88 36	86 27	84 17	82 03	79 45	77 26	75 04	72 40	70 40	66 41	2 30
2 30	94 27	92 39	90 48	88 55	86 57	84 57	82 55	80 49	78 41	76 30	74 17	72 02	70 40	66 41	2 40
2 40	92 30	90 47	89 03	87 16	85 24	83 31	81 36	79 37	77 37	75 34	73 30	71 22	70 40	66 41	2 50
2 50	90 39	89 01	87 22	85 40	83 55	82 08	80 19	78 27	76 33	74 37	72 40	70 40	66 41	64 02	3 00
3 00	88 53	87 21	85 45	84 08	82 29	80 47	79 04	77 18	75 31	73 41	71 50	69 56	68 10	66 41	3 10
3 10	87 12	85 44	84 10	82 40	81 06	79 28	77 50	76 09	74 27	72 43	70 58	69 10	67 33	65 49	3 20
3 20	85 35	84 10	82 43	81 14	79 44	78 12	76 37	75 02	73 24	71 45	70 04	68 22	66 41	64 57	3 30
3 30	84 01	82 39	81 15	79 51	78 23	76 56	75 26	73 54	72 21	70 46	69 10	67 33	65 49	64 02	3 40
3 40	82 29	81 10	79 50	78 28	77 05	75 40	74 15	72 47	71 18	69 47	68 16	66 41	64 57	63 13	3 50
3 50	80 59	79 44	78 26	77 08	75 48	74 26	73 04	71 40	70 14	68 48	67 20	65 49	64 02	62 35	4 00
4 00	79 32	78 19	77 04	75 48	74 31	73 14	71 54	70 33	69 11	67 48	66 23	64 57	63 13	61 39	4 10
4 10	78 05	76 55	75 42	74 29	73 15	72 00	70 43	69 25	68 06	66 46	65 25	64 02	62 35	60 60	4 20
4 20	76 40	75 31	74 21	73 11	72 00	70 47	69 34	68 18	67 02	65 45	64 26	63 07	61 39	60 10	4 30
4 30	75 16	74 09	73 02	71 54	70 45	69 34	68 23	67 11	65 57	64 43	63 26	62 07	60 60	59 33	4 40
4 40	73 52	72 48	71 43	70 37	69 30	68 22	67 13	66 02	64 51	63 40	62 27	61 13	59 56	58 33	4 50
4 50	72 29	71 26	70 24	69 19	68 15	67 09	66 02	64 54	63 46	62 36	61 26	60 16	59 03	57 48	5 00
5 00	71 07	70 05	69 04	68 02	66 59	65 55	64 51	63 45	62 39	61 31	60 23	59 13	58 03	56 53	5 10
5 10	69 44	68 45	67 45	66 45	65 44	64 41	63 40	62 35	61 30	60 26	59 19	58 10	57 00	55 50	5 20
5 20	68 21	67 24	66 26	65 27	64 28	63 27	62 27	61 25	60 22	59 19	58 15	57 10	56 03	55 03	5 30
5 30	66 59	66 03	65 07	64 09	63 12	62 13	61 14	60 14	59 13	58 12	57 08	56 03	55 03	54 03	5 40
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5 50	64 13	63 20	62 26	61 32	60 37	59 42	58 46	57 49	56 53	55 54	54 56	53 56	52 56	51 56	6 00
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6 10	61 24	60 33	59 43	58 52	58 01	57 08	56 15	55 21	54 27	53 33	52 38	51 41	50 41	49 41	6 20
6 20	60 00	59 11	58 21	57 31	56 41	55 49	54 59	54 06	53 13	52 21	51 28	50 33	49 33	48 33	6 30
6 30	58 34	57 46	56 58	56 09	55 20	54 31	53 41	52 50	51 59	51 07	50 15	49 22	48 22	47 22	6 40
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7 00	54 13	53 27	52 43	51 58	51 13	50 27	49 41	48 55	48 07	47 20	46 33	45 45	44 57	44 07	7 10
7 10	52 43	51 59	51 15	50 32	49 48	49 03	48 19	47 33	46 48	46 02	45 17	44 29	43 41	42 53	7 20
7 20	51 12	50 30	49 47	49 05	48 23	47 39	46 56	46 12	45 27	44 43	43 58	43 13	42 28	41 43	7 30
7 30	49 41	48 59	48 18	47 37	46 55	46 14	45 32	44 49	44 06	43 23	42 39	41 55	41 10	40 26	7 40
7 40	48 08	47 27	46 47	46 07	45 28	44 48	44 06	43 24	42 43	42 01	41 20	40 36	39 55	39 11	7 50
7 50	46 34	45 55	45 16	44 37	43 58	43 19	42 39	41 59	41 19	40 38	39 58	39 17	38 37	37 57	8 00
8 00	44 58	44 20	43 43	43 05	42 27	41 49	41 10	40 31	39 52	39 14	38 34	37 54	37 14	36 34	8 10
8 10	43 21	42 44	42 08	41 32	40 55	40 18	39 41	39 04	38 26	37 48	37 11	36 32	35 54	35 16	8 20
8 20	41 43	41 07	40 32	39 57	39 21	38 45	38 11	37 33	36 58	36 22	35 46	35 08	34 31	33 54	8 30
8 30	40 03	39 29	38 54	38 20	37 46	37 12	36 38	36 03	35 29	34 53	34 19	33 43	33 08	32 33	8 40
8 40	38 21	37 48	37 16	36 43	36 10	35 37	35 05	34 31	33 58	33 24	32 51	32 17	31 43	31 09	8 50
8 50	36 39	36 07	35 35	35 05	34 32	34 01	33 30	32 58	32 26	31 54	31 21	30 49	30 17	29 45	9 00
9 00	34 54	34 24	33 54	33 23	32 53	32 23	31 54	31 23	30 53	30 22	29 52	29 20	28 48	28 16	9 10
9 10	33 08	32 39	32 10	31 42	31 13	30 44	30 15	29 46	29 17	28 48	28 20	27 50	27 19	26 49	9 20
9 20	31 21	30 54	30 26	29 59	29 32	29 04	28 37	28 09	27 41	27 14	26 47	26 19	25 51	25 23	9 30
9 30	29 32	29 06	28 40	28 14	27 48	27 23	26 57	26 30	26 05	25 39	25 12	24 46	24 19	23 53	9 40
9 40	27 39	27 17	26 52	26 28	26 05	25 40	25 15	24 50	24 26	24 02	23 37	23 13	22 48	22 24</	

AZIMUTH OR TRUE BEARING.

LATITUDE 45°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 45°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.													h.	m.
		0	1	2	3	4	5	6	7	8	9	10	11		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	28 57	22 11	17 45	14 39	12 24	10 39	9 17	8 10	7 16	6 30	5 51	5 18	1	10
	20	47 08	38 38	32 13	27 18	23 28	20 25	17 58	15 56	14 13	12 47	11 32	10 27		20
	30	57 10	49 16	42 40	37 11	32 37	28 49	25 37	22 55	20 35	18 33	16 52	15 20		30
	40	62 53	56 01	49 53	44 28	39 46	35 40	32 05	28 59	26 15	23 52	21 44	19 53		40
	50	66 18	60 22	54 52	49 48	45 14	41 07	37 26	34 07	31 09	28 31	26 07	23 59		50
1	00	68 26	63 16	58 19	53 41	49 23	45 23	41 43	38 22	35 18	32 32	29 59	27 39	1	00
	10	69 45	65 11	60 46	56 32	52 30	48 43	45 10	41 52	38 48	35 58	33 19	30 54		10
	20	70 32	66 28	62 28	58 36	54 53	51 18	47 56	44 43	41 42	38 52	36 12	33 43		20
	30	70 58	67 17	63 40	60 07	56 40	53 18	50 06	47 01	44 05	41 19	38 40	36 10		30
	40	71 08	67 47	64 29	61 12	57 59	54 51	51 49	48 52	46 03	43 20	40 44	38 15		40
	50	71 06	68 02	64 59	61 57	58 58	56 02	53 09	50 22	47 38	45 01	42 28	40 02		50
2	00	70 55	68 06	65 16	62 27	59 40	56 53	54 11	51 31	48 55	46 25	43 55	41 32	2	00
	10	70 58	68 01	65 23	62 45	60 08	57 31	54 57	52 25	49 55	47 29	45 06	42 47		10
	20	70 14	67 48	65 20	62 52	60 24	57 57	55 31	53 06	50 43	48 23	46 04	43 49		20
	30	69 46	67 29	65 10	62 50	60 31	58 12	55 53	53 36	51 19	49 05	46 51	44 40		30
	40	69 15	67 05	64 54	62 43	60 31	58 19	56 07	53 56	51 45	49 35	47 27	45 20		40
	50	68 40	66 37	64 33	62 29	60 24	58 19	56 14	54 08	52 03	49 58	47 54	45 52		50
3	00	68 01	66 05	64 08	62 10	60 12	58 12	56 12	54 12	52 12	50 13	48 13	46 15	3	00
	10	67 22	65 31	63 40	61 47	59 55	58 00	56 06	54 10	52 16	50 20	48 26	46 34		10
	20	66 38	64 53	63 08	61 21	59 32	57 43	55 54	54 03	52 13	50 23	48 32	46 41		20
	30	65 54	64 14	62 32	60 50	59 06	57 22	55 37	53 52	52 06	50 18	48 31	46 45		30
	40	65 07	63 32	61 55	60 16	58 38	56 57	55 17	53 35	51 52	50 10	48 26	46 44		40
	50	64 20	62 47	61 15	59 40	58 05	56 29	54 53	53 15	51 36	49 58	48 18	46 38		50
4	00	63 30	62 02	60 33	59 02	57 31	55 58	54 25	52 51	51 16	49 40	48 04	46 27	4	00
	10	62 39	61 14	59 49	58 21	56 53	55 25	53 55	52 23	50 51	49 20	47 46	46 13		10
	20	61 46	60 24	59 02	57 38	56 13	54 47	53 21	51 53	50 25	48 55	47 25	45 54		20
	30	60 53	59 34	58 14	56 52	55 31	54 08	52 45	51 20	49 54	48 28	47 01	45 34		30
	40	59 57	58 41	57 25	56 06	54 47	53 27	52 07	50 44	49 22	47 58	46 34	45 09		40
	50	59 01	57 47	56 33	55 17	54 01	52 44	51 26	50 06	48 46	47 26	46 04	44 41		50
5	00	58 03	56 52	55 40	54 27	53 13	51 59	50 43	49 26	48 08	46 50	45 32	44 11	5	00
	10	57 04	55 55	54 46	53 35	52 23	51 11	49 58	48 44	47 29	46 13	44 56	43 39		10
	20	56 04	54 58	53 50	52 41	51 32	50 22	49 11	47 59	46 47	45 33	44 19	43 03		20
	30	55 03	53 58	52 53	51 46	50 39	49 31	48 22	47 13	46 02	44 52	43 39	42 26		30
	40	54 01	52 57	51 54	50 49	49 45	48 39	47 32	46 24	45 17	44 08	42 57	41 47		40
	50	52 57	51 55	50 54	49 52	48 49	47 45	46 40	45 34	44 28	43 21	42 13	41 05		50
6	00	51 51	50 52	49 53	48 53	47 51	46 49	45 47	44 43	43 39	42 34	41 29	40 22	6	00
	10	50 45	49 48	48 50	47 51	46 52	45 51	44 50	43 49	42 48	41 44	40 41	39 36		10
	20	49 38	48 42	47 47	46 49	45 51	44 53	43 55	42 55	41 54	40 54	39 52	38 49		20
	30	48 29	47 35	46 41	45 46	44 50	43 53	42 57	41 58	41 00	40 01	39 01	38 00		30
	40	47 19	46 27	45 34	44 41	43 46	42 51	41 57	41 00	40 04	39 06	38 08	37 09		40
	50	46 08	45 18	44 26	43 34	42 41	41 48	40 55	40 00	39 06	38 10	37 14	36 17		50
7	00	44 56	44 07	43 19	42 27	41 35	40 44	39 53	39 00	38 07	37 13	36 18	35 24	7	00
	10	43 43	42 54	42 06	41 17	40 28	39 39	38 48	37 57	37 06	36 15	35 21	34 28		10
	20	42 28	41 41	40 55	40 07	39 20	38 30	37 43	36 54	36 04	35 14	34 23	33 32		20
	30	41 12	40 27	39 42	38 56	38 10	37 23	36 36	35 48	35 01	34 12	33 23	32 33		30
	40	39 54	39 10	38 27	37 43	36 59	36 13	35 29	34 42	33 56	33 09	32 21	31 34		40
	50	38 36	37 53	37 11	36 29	35 46	35 03	34 19	33 35	32 49	32 05	31 19	30 33		50
8	00	37 14	36 34	35 54	35 13	34 32	33 50	33 09	32 24	31 43	30 58	30 15	29 31	8	00
	10	35 54	35 16	34 36	33 57	33 16	32 37	31 57	31 15	30 33	29 52	29 10	28 27		10
	20	34 32	33 55	33 16	32 38	32 00	31 22	30 43	30 03	29 24	28 44	28 03	27 23		20
	30	33 07	32 28	31 56	31 20	30 43	30 06	29 28	28 50	28 13	27 35	26 55	26 16		30
	40	31 43	31 08	30 34	29 59	29 24	28 49	28 14	27 37	27 01	26 24	25 47	25 09		40
	50	30 16	29 44	29 11	28 38	28 04	27 30	26 56	26 22	25 47	25 12	24 37	24 01		50
9	00	28 49	28 18	27 46	27 14	26 43	26 11	25 38	25 05	24 33	23 59	23 26	22 52	9	00
	10	27 20	26 51	26 21	25 50	25 21	24 50	24 20	23 48	23 17	22 45	22 14	21 42		10
	20	25 51	25 23	24 55	24 26	23 58	23 28	22 59	22 30	22 01	21 31	21 01	20 31		20
	30	24 20	23 54	23 26	22 50	22 23	22 06	21 39	21 11	20 43	20 15	19 47	19 18		30
	40	22 48	22 24	21 58	21 33	21 07	20 42	20 17	19 50	19 25	18 58	18 32	18 06		40
	50	21 15	20 52	20 28	20 05	19 42	19 17	18 54	18 29	18 05	17 41	17 17	16 52		50
10	00	19 41	19 20	18 59	18 35	18 14	17 52	17 30	17 07	16 45	16 23	16 00	15 37	10	00
	10	18 06	17 46	17 27	17 06	16 47	16 26	16 06	15 45	15 24	15 03	14 42	14 22		10
	20	16 31	16 12	15 54	15 35	15 18	14 59	14 41	14 22	14 03	13 43	13 24	13 05		20
	30	14 54	14 37	14 21	14 04	13 48	13 31	13 14	12 57	12 41	12 23	12 06	11 49		30
	40	13 16	13 02	12 47	12 33	12 17	12 02	11 48	11 33	11 18	11 02	10 47	10 31		40
	50	11 39	11 26	11 13	10 59	10 46	10 34	10 21	10 08	9 54	9 41	9 27	9 13		50
11	00	10 00	9 49	9 38	9 27	9 15	9 04	8 53	8 42	8 30	8 19	8 07	7 55	11	00

AZIMUTH OR TRUE BEARING.

LATITUDE 45°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 45°.			
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	1	0	1	0	1	0	1	0	1	0	1	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	4 49	4 23	4 00	3 40	3 21	3 05	2 50	2 36	2 24	2 12	2 01	1 50	1	10
	20	9 31	8 41	7 56	7 16	6 40	6 07	5 38	5 11	4 45	4 22	4 01	3 40		20
	30	14 00	12 48	11 43	10 46	9 53	9 06	8 23	7 42	7 05	6 31	6 00	5 30		30
	40	18 12	16 41	15 20	14 06	12 59	11 57	11 01	10 09	9 22	8 37	7 56	7 15		40
	50	22 02	20 18	18 42	17 14	15 55	14 41	13 33	12 31	11 33	10 38	9 49	8 59		50
1	00	25 32	23 36	21 49	20 10	18 39	17 15	15 57	14 45	13 37	12 36	11 37	10 37	1	00
	10	28 39	26 34	24 39	22 52	21 13	19 39	18 13	16 53	15 37	14 26	13 21	12 15		10
	20	31 24	29 14	27 13	25 19	23 32	21 53	20 19	18 52	17 29	16 11	14 58	13 45		20
	30	33 48	31 35	29 30	27 32	25 39	23 54	22 16	20 43	19 14	17 50	16 32	15 13		30
	40	35 53	33 40	31 32	29 30	27 36	25 46	24 02	22 25	20 51	19 23	18 00	16 42		40
	50	37 41	35 27	33 18	31 16	29 19	27 27	25 40	23 58	22 21	20 48	19 21	17 53		50
2	00	39 14	37 00	34 53	32 49	30 51	28 57	27 08	25 24	23 43	22 08	20 36	19 05	2	00
	10	40 32	38 20	36 13	34 10	32 12	30 17	28 26	26 41	24 58	23 20	21 45	20 15		10
	20	41 37	39 28	37 23	35 21	33 23	31 28	29 37	27 50	26 06	24 25	22 49	21 17		20
	30	42 31	40 26	38 22	36 22	34 25	32 30	30 39	28 51	27 06	25 25	23 48	22 10		30
	40	43 16	41 13	39 12	37 14	35 18	33 24	31 33	29 45	28 00	26 18	24 39	22 55		40
	50	43 51	41 52	39 53	37 57	36 02	34 11	32 21	30 33	28 48	27 06	25 25	23 45		50
3	00	44 18	42 21	40 26	38 32	36 41	34 49	33 01	31 14	29 29	27 47	26 07	24 25	3	00
	10	44 37	42 45	40 52	39 01	37 11	35 22	33 35	31 50	30 05	28 23	26 43	25 00		10
	20	44 50	43 01	41 11	39 23	37 35	35 49	34 03	32 19	30 35	28 54	27 15	25 30		20
	30	44 58	43 12	41 26	39 39	37 54	36 09	34 26	32 42	31 01	29 20	27 42	25 55		30
	40	45 00	43 17	41 33	39 50	38 07	36 24	34 43	33 02	31 21	29 42	28 03	26 18		40
	50	44 55	43 17	41 36	39 55	38 15	36 34	34 55	33 15	31 36	29 58	28 22	26 35		50
4	00	44 49	43 13	41 35	39 56	38 18	36 41	35 03	33 25	31 48	30 11	28 35	26 55	4	00
	10	44 38	43 04	41 29	39 53	38 19	36 42	35 06	33 31	31 55	30 21	28 46	27 05		10
	20	44 23	42 52	41 19	39 46	38 14	36 40	35 06	33 33	31 59	30 25	28 52	27 08		20
	30	44 04	42 36	41 06	39 35	38 05	36 34	35 02	33 31	31 59	30 26	28 55	27 10		30
	40	43 42	42 16	40 48	39 21	37 54	36 24	34 55	33 25	31 56	30 25	28 55	27 05		40
	50	43 18	41 54	40 29	39 04	37 35	36 11	34 44	33 17	31 49	30 21	28 52	27 05		50
5	00	42 50	41 29	40 07	38 43	37 20	35 55	34 30	33 05	31 38	30 12	28 46	27 15	5	00
	10	42 19	41 02	39 41	38 19	36 58	35 37	34 13	32 50	31 26	30 02	28 37	27 05		10
	20	41 47	40 30	39 12	37 54	36 35	35 15	33 54	32 32	31 10	29 48	28 25	27 00		20
	30	41 12	39 58	38 42	37 25	36 09	34 50	33 32	32 12	30 53	29 33	28 11	26 45		30
	40	40 35	39 22	38 09	36 54	35 40	34 24	33 07	31 50	30 32	29 13	27 54	26 25		40
	50	39 55	38 45	37 34	36 21	35 09	33 56	32 41	31 26	30 09	28 52	27 36	26 05		50
6	00	39 14	38 06	36 57	35 46	34 36	33 24	32 12	30 59	29 45	28 30	27 15	26 00	6	00
	10	38 30	37 24	36 17	35 09	34 00	32 51	31 41	30 29	29 18	28 05	26 51	25 35		10
	20	37 45	36 41	35 36	34 30	33 23	32 15	31 07	29 58	28 48	27 37	26 27	25 10		20
	30	36 58	35 56	34 53	33 49	32 44	31 39	30 33	29 25	28 17	27 08	25 58	24 45		30
	40	36 10	35 09	34 08	33 06	32 03	31 00	29 55	28 50	27 44	26 37	25 30	24 15		40
	50	35 19	34 21	33 21	32 22	31 21	30 20	29 17	28 13	27 10	26 05	24 59	23 45		50
7	00	34 27	33 31	32 33	31 35	30 37	29 37	28 37	27 35	26 33	25 30	24 26	23 15	7	00
	10	33 34	32 40	31 43	30 48	29 51	28 53	27 55	26 54	25 55	24 54	23 53	22 45		10
	20	32 39	31 46	30 53	29 58	29 03	28 07	27 11	26 13	25 15	24 16	23 17	22 10		20
	30	31 43	30 52	29 59	29 07	28 14	27 21	26 26	25 31	24 34	23 37	22 40	21 35		30
	40	30 46	29 56	29 05	28 14	27 24	26 32	25 39	24 45	23 51	22 57	22 01	21 00		40
	50	29 46	28 59	28 10	27 22	26 32	25 42	24 51	24 00	23 08	22 15	21 21	20 25		50
8	00	28 45	28 00	27 13	26 26	25 39	24 51	24 02	23 12	22 22	21 31	20 39	19 45	8	00
	10	27 43	27 00	26 16	25 31	24 45	23 59	23 12	22 24	21 36	20 47	19 57	19 00		10
	20	26 41	25 59	25 16	24 33	23 49	23 05	22 20	21 35	20 48	20 01	19 14	18 20		20
	30	25 37	24 57	24 16	23 34	22 52	22 10	21 28	20 44	20 00	19 14	18 29	17 35		30
	40	24 31	23 54	23 14	22 35	21 55	21 15	20 34	19 52	19 09	18 26	17 44	16 45		40
	50	23 24	22 48	22 12	21 34	20 56	20 18	19 38	18 59	18 19	17 38	16 57	16 05		50
9	00	22 18	21 43	21 07	20 32	19 56	19 19	18 43	18 04	17 26	16 48	16 09	15 20	9	00
	10	21 09	20 37	20 03	19 29	18 55	18 20	17 45	17 10	16 34	15 57	15 20	14 31		10
	20	19 59	19 29	18 57	18 25	17 54	17 21	16 48	16 14	15 40	15 05	14 31	13 40		20
	30	18 49	18 21	17 51	17 20	16 50	16 20	15 49	15 18	14 46	14 13	13 40	12 49		30
	40	17 38	17 11	16 44	16 15	15 47	15 19	14 50	14 20	13 50	13 19	12 49	12 00		40
	50	16 26	16 01	15 36	15 09	14 43	14 17	13 50	13 21	12 53	12 25	11 57	11 15		50
10	00	15 14	14 50	14 27	14 02	13 38	13 14	12 48	12 23	11 57	11 30	11 04	10 25	10	00
	10	14 00	13 39	13 16	12 54	12 31	12 10	11 46	11 23	10 59	10 35	10 11	9 28		10
	20	12 46	12 27	12 07	11 46	11 26	11 05	10 44	10 22	10 01	9 40	9 18	8 35		20
	30	11 31	11 14	10 55	10 37	10 19	10 01	9 41	9 22	9 02	8 43	8 20	7 35		30
	40	10 16	10 00	9 43	9 28	9 11	8 55	8 38	8 20	8 03	7 46	7 28	6 40		40
	50	9 00	8 46	8 32	8 18	8 04	7 49	7 34	7 20	7 04	6 49	6 34	5 45		50
11	00	7 44	7 31	7 20</											

AZIMUTH OR TRUE BEARING.

LATITUDE 46°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 46°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h. m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h. m.	o /
0 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0 00	180 00
10	173 55	173 42	173 27	173 11	172 53	172 33	172 11	171 46	171 17	170 44	170 06	169 22	168 22	10	173 55
20	167 55	167 29	167 00	166 29	165 54	165 17	164 34	163 46	162 52	161 50	160 38	159 16	157 56	20	167 55
30	162 05	160 28	160 47	160 01	159 12	158 18	157 19	156 12	154 86	153 32	151 54	150 05	148 11	30	162 05
40	156 29	155 41	154 49	153 54	152 53	151 45	150 32	149 10	147 39	145 59	144 06	141 58	139 46	40	156 29
50	151 09	150 14	149 14	148 08	146 58	145 42	144 18	142 47	141 06	139 16	137 12	134 56	132 35	50	151 09
1 00	146 07	145 05	144 00	142 48	141 31	140 07	138 37	137 00	135 14	133 17	131 09	128 52	126 35	1 00	146 07
10	141 25	140 17	139 06	137 50	136 28	135 01	133 28	131 47	129 57	128 00	125 52	123 35	121 10	10	141 25
20	136 59	135 51	134 36	133 17	131 53	130 24	128 48	127 06	125 16	123 20	121 14	119 00	116 58	20	136 59
30	132 52	131 40	130 25	129 04	127 39	126 08	124 33	122 52	121 04	119 10	117 07	114 58	112 41	30	132 52
40	129 02	127 48	126 32	125 11	123 46	122 16	120 42	119 02	117 16	115 25	113 27	111 21	109 08	40	129 02
50	125 27	124 14	122 58	121 36	120 12	118 43	117 11	115 33	113 50	112 03	110 10	108 12	106 17	50	125 27
2 00	122 06	120 53	119 37	118 16	116 54	115 26	113 57	112 21	110 41	108 58	107 09	105 17	103 29	2 00	122 06
10	118 58	117 45	116 30	115 12	113 50	112 25	110 57	109 25	107 49	106 09	104 25	102 39	100 51	10	118 58
20	116 01	114 49	113 36	112 18	110 59	109 36	108 11	106 41	105 09	103 32	101 53	100 11	98 28	20	116 01
30	113 14	112 04	110 51	109 36	108 18	106 57	105 34	104 08	102 39	101 07	99 31	97 53	96 13	30	113 14
40	110 36	109 27	108 17	107 02	105 47	104 28	103 10	101 45	100 18	98 50	97 19	95 45	94 11	40	110 36
50	108 07	106 59	105 50	104 38	103 24	102 08	100 51	99 30	98 07	96 41	95 13	93 44	92 14	50	108 07
3 00	105 45	104 38	103 31	102 21	101 09	99 55	98 40	97 22	96 01	94 41	93 15	91 49	90 23	3 00	105 45
10	103 29	102 23	101 17	100 09	99 00	97 48	96 34	95 18	94 02	92 43	91 21	89 58	88 33	10	103 29
20	101 17	100 14	99 10	98 03	96 55	95 45	94 33	93 22	92 07	90 51	89 33	88 13	86 39	20	101 17
30	99 13	98 11	97 07	96 02	94 54	93 49	92 39	91 29	90 16	89 02	87 47	86 30	85 05	30	99 13
40	97 11	96 11	95 08	94 05	93 01	91 55	90 50	89 40	88 30	87 18	86 05	84 51	83 34	40	97 11
50	95 13	94 15	93 14	92 13	91 10	90 05	89 01	87 55	86 46	85 37	84 27	83 14	82 01	50	95 13
4 00	93 19	92 22	91 23	90 23	89 22	88 19	87 17	86 12	85 06	83 59	82 50	81 41	80 30	4 00	93 19
10	91 28	90 32	89 34	88 35	87 35	86 35	85 34	84 31	83 26	82 21	81 15	80 08	79 00	10	91 28
20	89 40	88 44	87 48	86 51	85 52	84 53	83 54	82 52	81 50	80 47	79 42	78 35	77 26	20	89 40
30	87 51	86 59	86 04	85 08	84 11	83 14	82 15	81 16	80 15	79 13	78 10	77 08	76 04	30	87 51
40	86 09	85 16	84 22	83 27	82 32	81 35	80 39	79 40	78 42	77 41	76 41	75 39	74 34	40	86 09
50	84 25	83 34	82 41	81 48	80 54	79 58	79 03	78 06	77 08	76 10	75 12	74 11	73 11	50	84 25
5 00	82 44	81 53	81 02	80 09	79 15	78 22	77 28	76 33	75 36	74 39	73 42	72 45	71 48	5 00	82 44
10	81 03	80 13	79 22	78 31	77 39	76 47	75 57	75 00	74 05	73 10	72 14	71 18	70 21	10	81 03
20	79 24	78 34	77 45	76 54	76 03	75 12	74 20	73 28	72 35	71 41	70 46	69 51	68 54	20	79 24
30	77 45	76 56	76 07	75 18	74 28	73 38	72 47	71 56	71 04	70 11	69 18	68 24	67 29	30	77 45
40	76 06	75 17	74 31	73 42	72 53	72 04	71 15	70 24	69 34	68 41	67 50	66 58	65 63	40	76 06
50	74 28	73 41	72 54	72 06	71 19	70 31	69 42	68 53	68 03	67 13	66 22	65 31	64 40	50	74 28
6 00	72 49	72 03	71 17	70 30	69 44	68 57	68 09	67 21	66 33	65 43	64 53	64 04	63 15	6 00	72 49
10	71 10	70 25	69 41	68 54	68 09	67 23	66 36	65 49	65 01	64 13	63 24	62 36	61 48	10	71 10
20	69 32	68 48	68 04	67 18	66 34	65 48	65 03	64 17	63 30	62 44	61 56	61 08	60 20	20	69 32
30	67 52	67 09	66 26	65 41	64 57	64 13	63 28	62 43	61 58	61 12	60 25	59 39	58 52	30	67 52
40	66 12	65 29	64 48	64 04	63 21	62 37	61 54	61 10	60 26	59 40	58 55	58 10	57 24	40	66 12
50	64 31	63 50	63 08	62 26	61 43	61 01	60 19	59 36	58 52	58 08	57 24	56 41	55 58	50	64 31
7 00	62 50	62 10	61 29	60 47	60 06	59 24	58 43	58 01	57 18	56 35	55 52	55 10	54 28	7 00	62 50
10	61 08	60 28	59 48	59 06	58 27	57 46	57 06	56 24	55 43	55 00	54 19	53 37	52 56	10	61 08
20	59 25	58 45	58 07	57 26	56 47	56 07	55 27	54 47	54 06	53 26	52 45	52 04	51 24	20	59 25
30	57 41	57 02	56 24	55 45	55 05	54 27	53 48	53 09	52 29	51 50	51 10	50 30	49 50	30	57 41
40	55 54	55 17	54 39	54 01	53 23	52 45	52 07	51 29	50 50	50 12	49 33	48 55	48 17	40	55 54
50	54 08	53 31	52 54	52 17	51 40	51 03	50 26	49 49	49 11	48 33	47 56	47 18	46 41	50	54 08
8 00	52 19	51 43	51 07	50 31	49 54	49 18	48 42	48 06	47 29	46 54	46 16	45 40	45 04	8 00	52 19
10	50 29	49 53	49 19	48 44	48 08	47 33	46 58	46 23	45 47	45 12	44 36	44 02	43 27	10	50 29
20	48 37	48 03	47 29	46 54	46 19	45 46	45 12	44 38	44 03	43 29	42 55	42 21	41 47	20	48 37
30	46 43	46 10	45 37	45 03	44 30	43 57	43 25	42 52	42 18	41 45	41 12	40 39	40 06	30	46 43
40	44 47	44 16	43 43	43 11	42 38	42 07	41 35	41 03	40 31	39 59	39 27	38 55	38 23	40	44 47
50	42 50	42 18	41 48	41 17	40 46	40 15	39 45	39 14	38 43	38 12	37 41	37 11	36 41	50	42 50
9 00	40 51	40 20	39 51	39 21	38 50	38 21	37 52	37 22	36 52	36 23	35 53	35 25	34 56	9 00	40 51
10	38 49	38 20	37 51	37 23	36 55	36 26	35 58	35 30	35 00	34 33	34 04	33 36	33 08	10	38 49
20	36 46	36 18	35 51	35 23	34 56	34 29	34 02	33 34	33 08	32 40	32 14	31 48	31 22	20	36 46
30	34 40	34 14	33 48	33 21	32 55	32 30	32 04	31 39	31 13	30 47	30 22	29 56	29 30	30	34 40
40	32 33	32 08</													

AZIMUTH OR TRUE BEARING.

LATITUDE 46°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 46°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°		Hour Angle.		
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o		h.	m.	
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	.....	0 00	0	00
	10	168 29	167 24	166 05	164 23	162 11	159 11	154 55	148 23	137 38	118 48	89 06	58 57			10	
	20	157 45	155 42	153 22	150 30	146 55	142 18	136 17	128 18	117 43	104 08	88 12	72 00			20	
	30	147 57	145 28	142 34	139 06	134 57	129 57	123 53	116 37	107 59	98 04	87 18	76 20			30	
	40	139 33	136 47	133 39	130 02	125 52	121 03	115 28	109 14	102 13	94 32	86 24	78 07			40	
	50	132 23	129 33	126 24	122 52	118 53	114 27	109 32	104 09	98 16	92 01	85 30	78 51			50	
1	00	126 18	123 30	120 26	117 04	113 24	109 22	105 00	100 19	95 18	90 02	84 35	79 03		1	00	
	10	121 06	118 24	115 29	112 20	108 57	105 17	101 23	97 15	92 54	88 21	83 41	78 56			10	
	20	116 37	114 02	111 17	108 22	105 13	101 54	98 24	94 43	90 51	86 52	82 46	78 36			20	
	30	112 38	110 14	107 40	104 56	102 03	99 01	95 50	92 31	89 03	85 31	81 51	78 08			30	
	40	109 13	106 54	104 29	101 57	99 16	96 29	93 34	90 34	87 26	84 14	80 56	77 36			40	
	50	106 07	103 56	101 40	99 18	96 49	94 14	91 34	88 48	85 57	83 01	80 01	76 58			50	
2	00	103 22	101 15	99 07	96 53	94 35	92 11	89 43	87 10	84 32	81 51	79 05	76 21		2	00	
	10	100 45	98 48	96 47	94 42	92 32	90 18	88 00	85 38	83 11	80 42	78 09	75 35			10	
	20	98 23	96 33	94 39	92 40	90 38	88 33	86 23	84 10	81 55	79 36	77 13	74 49			20	
	30	96 11	94 26	92 37	90 47	88 51	86 53	84 50	82 47	80 40	78 29	76 16	74 02			30	
	40	94 07	92 27	90 45	88 59	87 09	85 18	83 23	81 27	79 27	77 25	75 20	73 12			40	
	50	92 10	90 35	88 57	87 16	85 34	83 48	81 59	80 08	78 15	76 20	74 22	72 23			50	
3	00	90 20	88 48	87 14	85 38	84 00	82 20	80 37	78 52	77 05	75 16	73 24	71 32		3	00	
	10	88 32	87 05	85 35	84 04	82 30	80 55	79 16	77 37	75 56	74 12	72 26	70 39			10	
	20	86 50	85 26	84 01	82 33	81 04	79 32	77 58	76 24	74 47	73 08	71 27	69 46			20	
	30	85 11	83 50	82 29	81 04	79 38	78 11	76 42	75 11	73 38	72 04	70 28	68 50			30	
	40	83 35	82 18	80 58	79 37	78 16	76 55	75 25	73 59	72 30	71 00	69 28	67 56			40	
	50	82 01	80 46	79 31	78 13	76 54	75 33	74 10	72 47	71 22	69 56	68 28	66 59			50	
4	00	80 30	79 17	78 04	76 49	75 33	74 16	72 56	71 36	70 14	68 51	67 27	66 01		4	00	
	10	78 59	77 50	76 38	75 26	74 13	72 59	71 42	70 25	69 06	67 47	66 25	65 03			10	
	20	77 30	76 23	75 15	74 04	72 54	71 42	70 28	69 14	67 58	66 41	65 23	64 04			20	
	30	76 03	74 58	73 51	72 44	71 35	70 26	69 14	68 03	66 49	65 35	64 20	63 03			30	
	40	74 37	73 33	72 29	71 23	70 17	69 10	68 01	66 51	65 40	64 29	63 16	62 02			40	
	50	73 11	72 09	71 07	70 04	68 59	67 53	66 47	65 40	64 31	63 22	62 11	61 01			50	
5	00	71 45	70 45	69 44	68 43	67 40	66 37	65 32	64 27	63 22	62 15	61 06	59 57		5	00	
	10	70 19	69 21	68 22	67 22	66 22	65 21	64 18	63 15	62 11	61 07	60 00	58 54			10	
	20	68 54	67 58	67 01	66 02	65 04	64 04	63 04	62 02	61 00	59 57	58 53	57 48			20	
	30	67 29	66 35	65 39	64 42	63 45	62 47	61 48	60 49	59 48	58 45	57 45	56 42			30	
	40	66 04	65 10	64 16	63 21	62 25	61 29	60 32	59 35	58 36	57 37	56 36	55 35			40	
	50	64 39	63 47	62 54	62 01	61 04	60 12	59 16	58 20	57 23	56 26	55 27	54 27			50	
6	00	63 13	62 22	61 31	60 38	59 46	58 52	57 58	57 04	56 09	55 13	54 16	53 19		6	00	
	10	61 46	60 57	60 07	59 16	58 25	57 33	56 41	55 48	54 57	54 00	53 04	52 09			10	
	20	60 20	59 32	58 43	57 53	57 03	56 13	55 22	54 30	53 38	52 46	51 52	50 58			20	
	30	58 53	58 06	57 17	56 29	55 40	54 52	54 02	53 13	52 21	51 30	50 38	49 46			30	
	40	57 24	56 38	55 52	55 04	54 17	53 30	52 42	51 53	51 03	50 14	49 23	48 32			40	
	50	55 56	55 11	54 26	53 39	52 54	52 07	51 20	50 33	49 45	48 57	48 08	47 18			50	
7	00	54 26	53 42	52 57	52 13	51 29	50 40	49 58	49 12	48 25	47 39	46 51	46 04		7	00	
	10	52 54	52 11	51 29	50 45	50 02	49 18	48 33	47 49	47 04	46 19	45 33	44 46			10	
	20	51 22	50 41	50 00	49 17	48 35	47 53	47 09	46 26	45 43	44 58	44 13	43 28			20	
	30	49 50	49 09	48 28	47 48	47 06	46 25	45 43	45 01	44 19	43 36	42 53	42 10			30	
	40	48 15	47 36	46 56	46 17	45 38	44 58	44 16	43 36	42 55	42 13	41 32	40 50			40	
	50	46 41	46 02	45 24	44 46	44 06	43 28	42 48	42 09	41 29	40 50	40 09	39 29			50	
8	00	45 03	44 27	43 49	43 12	42 34	41 57	41 18	40 41	40 02	39 24	38 45	38 06		8	00	
	10	43 26	42 49	42 14	41 38	41 02	40 25	39 48	39 12	38 35	37 57	37 20	36 42			10	
	20	41 46	41 11	40 37	40 02	39 27	38 53	38 17	37 42	37 05	36 30	35 53	35 18			20	
	30	40 06	39 31	38 58	38 25	37 51	37 18	36 43	36 09	35 35	35 01	34 26	33 52			30	
	40	38 23	37 50	37 18	36 47	36 15	35 42	35 09	34 37	34 04	33 31	32 57	32 22			40	
	50	36 40	36 09	35 38	35 07	34 36	34 05	33 33	33 03	32 30	32 00	31 27	30 56			50	
9	00	34 54	34 25	33 56	33 16	32 56	32 27	31 56	31 26	30 56	30 27	29 56	29 25		9	00	
	10	33 08	32 40	32 11	31 44	31 15	30 46	30 18	29 50	29 21	28 53	28 23	27 55			10	
	20	31 20	30 53	30 26	30 00	29 32	29 06	28 38	28 12	27 45	27 18	26 50	26 23			20	
	30	29 31	29 05	28 41	28 15	27 50	27 24	26 59	26 33	26 07	25 42	25 16	24 50			30	
	40	27 40	27 16	26 52	26 29	26 04	25 40	25 17	24 53	24 29	24 04	23 40	23 15			40	
	50	25 48	25 26	25 03	24 41	24 18	23 56	23 34	23 11	22 49	22 26	22 03	21 40			50	
10	00	23 55	23 33	23 13	22 52	22 31	22 10	21 50	21 29	21 08	20 47	20 26	20 04		10	00	
	10	22 00	21 41	21 21	21 02	20 43	20 23	20 04	19 45	19 26	19 06	18 47	18 27			10	
	20	20 04	19 47	19 28	19 11	18 54	18 36	18 18	18 01	17 43	17 26	17 08	16 50			20	
	30	18 08	17 51	1													

AZIMUTH OR TRUE BEARING.

LATITUDE 46°.		DECLINATION—SAME NAME AS—LATITUDE												LATITUDE 46°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	39 32	28 28	21 46	17 24	14 21	12 07	10 24	9 04	7 58	7 05	6 20	5 41	1	10
	20	57 47	46 34	38 04	31 41	26 48	23 00	20 00	17 34	15 33	13 52	12 26	11 13		20
	30	65 55	56 39	48 42	42 03	36 34	32 02	28 15	25 05	22 24	20 06	18 06	16 25		30
	40	70 02	62 26	55 29	49 18	43 51	39 08	35 02	31 28	28 23	25 40	23 18	21 12		40
	50	72 16	65 54	59 53	54 18	49 12	44 35	40 28	36 45	33 27	30 30	27 51	25 29		50
1	00	73 30	68 03	62 48	57 48	53 06	48 44	44 44	41 03	37 41	34 37	31 49	29 17	1	00
	10	74 09	69 23	64 45	60 16	55 58	51 54	48 04	44 30	41 10	38 05	35 15	32 36		10
	20	74 24	70 12	66 03	62 00	58 04	54 17	50 40	47 15	44 01	40 59	38 08	35 27		20
	30	74 23	70 38	66 54	63 12	59 36	56 05	52 42	49 27	46 20	43 22	40 34	37 53		30
	40	74 12	70 48	67 24	64 02	60 42	57 26	54 15	51 11	48 12	45 20	42 35	39 58		40
	50	73 53	70 46	67 39	64 32	61 27	58 26	55 27	52 32	49 42	46 56	44 17	41 43		50
2	00	73 28	70 35	67 43	64 50	61 58	59 08	56 20	53 34	50 51	48 13	45 40	43 09	2	00
	10	72 57	70 18	67 37	64 56	62 16	59 36	56 58	54 21	51 46	49 15	46 47	44 21		10
	20	72 23	69 55	67 24	64 54	62 24	59 54	57 23	54 55	52 28	50 03	47 40	45 19		20
	30	71 45	69 26	67 06	64 45	62 23	60 01	57 39	55 19	52 58	50 39	48 23	46 07		30
	40	71 04	68 54	66 42	64 29	62 15	60 01	57 47	55 33	53 19	51 06	48 55	46 44		40
	50	70 25	68 19	66 14	64 09	62 01	59 54	57 46	55 39	53 31	51 24	49 17	47 11		50
3	00	69 37	67 40	65 42	63 43	61 43	59 45	57 40	55 39	53 37	51 34	49 33	47 31	3	00
	10	68 49	66 59	65 07	63 15	61 19	59 24	57 29	55 33	53 35	51 38	49 41	47 43		10
	20	68 02	66 16	64 29	62 42	60 53	59 03	57 12	55 20	53 28	51 36	49 43	47 51		20
	30	67 12	65 31	63 49	62 07	60 22	58 37	56 50	55 04	53 16	51 29	49 39	47 50		30
	40	66 20	64 45	63 07	61 29	59 48	58 08	56 26	54 43	53 00	51 16	49 31	47 46		40
	50	65 28	63 56	62 22	60 47	59 13	57 36	55 58	54 20	52 40	50 59	49 18	47 36		50
4	00	64 34	63 06	61 36	60 06	58 34	57 01	55 26	53 52	52 16	50 39	49 02	47 22	4	00
	10	63 39	62 14	60 50	59 21	57 53	56 23	54 53	53 21	51 49	50 16	48 41	47 07		10
	20	62 43	61 21	59 58	58 34	57 09	55 43	54 16	52 48	51 18	49 49	48 18	46 46		20
	30	61 45	60 27	59 07	57 46	56 24	55 00	53 37	52 11	50 45	49 18	47 51	46 22		30
	40	60 47	59 32	58 14	56 56	55 37	54 17	52 55	51 34	50 10	48 46	47 21	45 54		40
	50	59 48	58 35	57 20	56 04	54 48	53 31	52 12	50 53	49 32	48 11	46 49	45 25		50
5	00	58 47	57 36	56 24	55 11	53 57	52 43	51 26	50 09	48 52	47 33	46 13	44 53	5	00
	10	57 45	56 37	55 27	54 17	53 05	51 53	50 39	49 25	48 10	46 55	45 36	44 18		10
	20	56 43	55 36	54 29	53 21	52 11	51 01	49 50	48 38	47 25	46 10	44 57	43 41		20
	30	55 39	54 35	53 29	52 23	51 16	50 08	49 00	47 50	46 39	45 27	44 15	43 02		30
	40	54 34	53 32	52 28	51 23	50 19	49 14	48 07	46 59	45 50	44 42	43 31	42 20		40
	50	53 28	52 28	51 26	50 24	49 21	48 17	47 13	46 07	45 01	43 54	42 46	41 36		50
6	00	52 21	51 23	50 23	49 23	48 21	47 20	46 16	45 14	44 09	43 05	41 59	40 51	6	00
	10	51 13	50 16	49 18	48 20	47 20	46 21	45 19	44 19	43 16	42 13	41 09	40 04		10
	20	50 03	49 09	48 12	47 16	46 18	45 21	44 21	43 22	42 22	41 20	40 18	39 16		20
	30	48 53	48 00	47 05	46 11	45 15	44 18	43 21	42 24	41 25	40 26	39 26	38 25		30
	40	47 41	46 49	45 57	45 03	44 10	43 15	42 20	41 24	40 27	39 30	38 33	37 37		40
	50	46 28	45 38	44 47	43 56	43 04	42 11	41 17	40 24	39 29	38 33	37 36	36 40		50
7	00	45 14	44 26	43 36	42 46	41 56	41 05	40 12	39 21	38 28	37 34	36 40	35 45	7	00
	10	43 59	43 12	42 24	41 36	40 47	39 58	39 07	38 16	37 25	36 33	35 41	34 47		10
	20	42 43	41 58	41 11	40 25	39 37	38 49	38 00	37 12	36 22	35 32	34 41	33 50		20
	30	41 26	40 42	39 57	39 12	38 26	37 39	36 52	36 05	35 18	34 29	33 41	32 50		30
	40	40 07	39 25	38 41	37 57	37 13	36 28	35 43	34 58	34 11	33 25	32 37	31 49		40
	50	38 47	38 06	37 24	36 42	36 00	35 17	34 33	33 49	33 04	32 20	31 34	30 48		50
8	00	37 26	36 46	36 06	35 25	34 44	34 03	33 21	32 39	31 56	31 12	30 29	29 44	8	00
	10	36 04	35 26	34 47	34 08	33 28	32 49	32 08	31 28	30 46	30 05	29 23	28 40		10
	20	34 40	34 04	33 27	32 49	32 11	31 33	30 54	30 16	29 36	28 56	28 15	27 34		20
	30	33 15	32 40	32 04	31 28	30 53	30 16	29 39	29 01	28 24	27 45	27 07	26 28		30
	40	31 50	31 17	30 41	30 08	29 33	28 58	28 22	27 46	27 10	26 35	25 57	25 20		40
	50	30 23	29 51	29 18	28 45	28 12	27 39	27 05	26 31	25 56	25 21	24 47	24 10		50
9	00	28 55	28 24	27 53	27 21	26 49	26 15	25 46	25 14	24 41	24 08	23 35	23 01	9	00
	10	27 26	26 56	26 26	25 57	25 27	24 57	24 26	23 56	23 24	22 53	22 23	21 50		10
	20	25 55	25 28	25 00	24 32	24 03	23 34	23 05	22 37	22 08	21 38	21 08	20 38		20
	30	24 24	23 58	23 31	23 05	22 38	22 11	21 44	21 17	20 50	20 21	19 54	19 25		30
	40	22 52	22 27	22 02	21 39	21 13	20 47	20 21	19 56	19 30	19 04	18 38	18 12		40
	50	21 18	20 55	20 32	20 09	19 45	19 22	18 58	18 34	18 10	17 47	17 22	16 57		50
10	00	19 43	19 23	19 01	18 39	18 18	17 56	17 34	17 12	16 49	16 27	16 05	15 42	10	00
	10	18 08	17 4												

AZIMUTH OR TRUE BEARING.

LATITUDE 46°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 46°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°		Hour Angle.	
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	5 09	4 40	4 15	3 52	3 32	3 14	2 58	2 43	2 30	2 17	2 06		10	00
	20	10 09	9 14	8 25	7 40	7 02	6 26	5 54	5 25	4 58	4 34	4 11		20	00
	30	14 55	13 36	12 24	11 22	10 24	9 33	8 46	8 03	7 24	6 47	6 14		30	00
	40	19 20	17 40	16 12	14 51	13 38	12 32	11 31	10 36	9 44	8 57	8 13		40	00
	50	23 22	21 27	19 44	18 08	16 42	15 22	14 10	13 03	12 01	11 04	10 11		50	00
1	00	26 59	24 52	22 56	21 10	19 32	18 02	16 39	15 22	14 11	13 04	12 02		1	00
	10	30 10	27 56	25 51	23 57	22 09	20 31	18 59	17 34	16 13	14 59	13 49		10	00
	20	32 59	30 39	28 28	26 27	24 34	22 48	21 08	19 36	18 09	16 47	15 30		20	00
	30	35 24	33 02	30 48	28 42	26 45	24 53	23 09	21 29	19 56	18 29	17 06		30	00
	40	37 29	35 07	32 51	30 43	28 42	26 46	24 58	23 14	21 36	20 03	18 35		40	00
	50	39 15	36 54	34 38	32 29	30 26	28 28	26 36	24 49	23 07	21 31	19 58		50	00
2	00	40 45	38 26	36 11	34 03	31 58	29 59	28 05	26 16	24 31	22 51	21 15		2	00
	10	42 01	39 44	37 30	35 22	33 19	31 19	29 24	27 33	25 46	24 04	22 25		10	00
	20	43 03	40 50	38 38	36 32	34 29	32 29	30 34	28 43	26 54	25 10	23 30		20	00
	30	43 55	41 44	39 36	37 31	35 29	33 31	31 36	29 44	27 55	26 10	24 28		30	00
	40	44 36	42 28	40 23	38 21	36 22	34 26	32 31	30 39	28 49	27 03	25 20		40	00
	50	45 08	43 04	41 02	39 03	37 04	35 09	33 15	31 25	29 36	27 50	26 07		50	00
3	00	45 31	43 31	41 33	39 36	37 40	35 47	33 55	32 05	30 18	28 32	26 48		3	00
	10	45 47	43 52	41 57	40 02	38 10	36 18	34 28	32 39	30 52	29 05	27 23		10	00
	20	45 58	44 05	42 14	40 22	38 32	36 42	34 54	33 07	31 21	29 37	27 54		20	00
	30	46 03	44 13	42 24	40 36	38 49	37 01	35 15	33 30	31 46	30 02	28 23		30	00
	40	46 02	44 16	42 30	40 45	39 00	37 15	35 31	33 48	32 05	30 23	28 42		40	00
	50	45 55	44 12	42 30	40 49	39 06	37 24	35 42	34 01	32 19	30 38	29 00		50	00
4	00	45 45	44 06	42 27	40 48	39 08	37 28	35 48	34 09	32 30	30 51	29 13		4	00
	10	45 32	43 55	42 19	40 42	39 05	37 28	35 50	34 13	32 35	30 58	29 22		10	00
	20	45 14	43 41	42 06	40 33	38 59	37 23	35 49	34 13	32 37	31 03	29 27		20	00
	30	44 52	43 22	41 51	40 20	38 48	37 16	35 44	34 10	32 37	31 03	29 30		30	00
	40	44 29	43 01	41 33	40 04	38 34	37 04	35 34	34 03	32 32	31 00	29 29		40	00
	50	44 02	42 36	41 11	39 44	38 18	36 50	35 22	33 54	32 24	30 54	29 25		50	00
5	00	43 32	42 10	40 46	39 22	37 57	36 32	35 06	33 40	32 13	30 45	29 17		5	00
	10	42 59	41 39	40 19	38 57	37 35	36 11	34 48	33 23	31 58	30 33	29 07		10	00
	20	42 25	41 07	39 48	38 30	37 10	35 49	34 27	33 05	31 42	30 18	28 54		20	00
	30	41 48	40 32	39 16	38 00	36 42	35 23	34 04	32 44	31 22	30 01	28 39		30	00
	40	41 08	39 55	38 42	37 27	36 12	34 55	33 38	32 20	31 01	29 41	28 21		40	00
	50	40 27	39 16	38 04	36 53	35 39	34 25	33 10	31 54	30 37	29 20	28 02		50	00
6	00	39 44	38 35	37 26	36 15	35 05	33 52	32 40	31 26	30 12	28 55	27 40		6	00
	10	38 59	37 52	36 45	35 36	34 27	33 18	32 07	30 56	29 43	28 30	27 15		10	00
	20	38 12	37 08	36 02	34 56	33 49	32 41	31 33	30 23	29 12	28 01	26 48		20	00
	30	37 24	36 21	35 18	34 14	33 09	32 03	30 56	29 49	28 40	27 30	26 21		30	00
	40	36 33	35 33	34 32	33 30	32 27	31 23	30 18	29 13	28 06	26 59	25 51		40	00
	50</														

AZIMUTH OR TRUE BEARING.

LATITUDE 47°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 47°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.			
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.		
		0	0	0	0	0	0	0	0	0	0	0	0				
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00		
	10	174 11	173 53	173 45	173 30	173 15	172 57	172 38	172 15	171 51	171 22	170 51	170 14	1	10		
	20	168 25	168 01	167 35	167 07	166 36	166 03	165 25	164 43	163 56	163 02	162 01	160 51		20		
	30	162 48	162 13	161 36	160 57	160 12	159 24	158 30	157 31	156 25	155 11	153 48	152 12		30		
	40	157 22	156 39	155 52	155 01	154 06	153 06	152 00	150 47	149 26	147 56	146 18	144 25		40		
	50	152 11	151 20	150 26	149 26	148 22	147 13	145 57	144 34	143 04	141 24	139 34	137 32		50		
1	00	147 17	146 19	145 18	144 13	143 01	141 46	140 23	138 54	137 17	135 31	133 36	131 29	1	00		
	10	142 38	141 36	140 30	139 21	138 04	136 44	135 18	133 44	132 04	130 14	128 18	126 11		10		
	20	138 17	137 11	136 02	134 49	133 30	132 07	130 38	129 03	127 22	125 32	123 37	121 31		20		
	30	134 12	133 03	131 52	130 37	129 17	127 52	126 23	124 48	123 07	121 19	119 25	117 22		30		
	40	130 22	129 12	128 00	126 44	125 24	123 58	122 29	120 55	119 15	117 29	115 38	113 40		40		
	50	126 47	125 37	124 24	123 08	121 47	120 23	118 55	117 22	115 44	114 02	112 14	110 21		50		
2	00	123 24	122 14	121 02	119 46	118 26	117 03	115 37	114 05	112 31	110 51	109 08	107 19	2	00		
	10	120 14	119 05	117 52	116 38	115 19	113 57	112 33	111 04	109 33	107 56	106 17	104 32		10		
	20	117 15	116 07	114 55	113 42	112 24	111 05	109 42	108 16	106 47	105 14	103 38	101 58		20		
	30	114 25	113 18	112 08	110 56	109 40	108 22	107 03	105 39	104 12	102 42	101 10	99 35		30		
	40	111 45	110 38	109 30	108 19	107 05	105 49	104 32	103 11	101 47	100 21	98 52	97 20		40		
	50	109 13	108 07	107 00	105 51	104 39	103 26	102 09	100 51	99 31	98 07	96 41	95 13		50		
3	00	106 48	105 43	104 37	103 30	102 20	101 09	99 54	98 38	97 20	96 00	94 37	93 12	3	00		
	10	104 29	103 25	102 21	101 15	100 06	98 57	97 45	96 32	95 16	93 58	92 39	91 17		10		
	20	102 16	101 14	100 10	99 06	97 59	96 51	95 42	94 31	93 17	92 03	90 46	89 26		20		
	30	100 07	99 06	98 04	97 02	95 56	94 51	93 43	92 34	91 23	90 10	88 56	87 40		30		
	40	98 03	97 03	96 03	95 01	93 58	92 53	91 49	90 41	89 32	88 22	87 11	85 57		40		
	50	96 02	95 05	94 06	93 05	92 04	91 00	89 57	88 52	87 45	86 36	85 27	84 16		50		
4	00	94 06	93 09	92 11	91 12	90 12	89 12	88 09	8								

AZIMUTH OR TRUE BEARING.

LATITUDE 47°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 47°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h. m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h. m.	o /
0 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0 00
0 10	169 29	168 38	167 34	166 16	164 36	162 26	159 29	155 16	148 14	138 08	119 15	89 05	0 10	89 05	
0 20	159 30	157 54	156 00	153 42	150 52	147 18	142 44	136 44	128 45	118 07	104 22	88 10	0 20	88 10	
0 30	150 23	148 17	145 49	142 56	139 30	135 22	130 23	124 20	117 00	108 16	98 14	87 15	0 30	87 15	
0 40	142 18	139 54	137 10	134 03	130 26	126 15	121 26	115 52	109 33	102 25	94 37	86 20	0 40	86 20	
0 50	135 16	132 45	129 56	126 46	123 13	119 14	114 47	109 49	104 22	98 25	92 04	85 25	0 50	85 25	
1 00	129 11	126 39	123 51	120 47	117 25	113 41	109 38	105 14	100 28	95 23	90 03	84 30	1 00	84 30	
1 10	123 53	121 24	118 42	115 47	112 36	109 11	105 30	101 34	97 22	92 57	88 21	83 35	1 10	83 35	
1 20	119 17	116 53	114 18	111 33	108 35	105 25	102 05	98 31	94 47	90 52	86 50	82 39	1 20	82 39	
1 30	115 12	112 54	110 28	107 52	105 07	102 12	99 08	95 55	92 33	89 03	85 26	81 43	1 30	81 43	
1 40	111 36	109 25	107 06	104 40	102 05	99 24	96 34	93 38	90 35	87 24	84 08	80 48	1 40	80 48	
1 50	108 22	106 16	104 05	101 48	99 24	96 53	94 18	91 35	88 47	85 53	82 54	79 51	1 50	79 51	
2 00	105 25	103 26	101 22	99 13	96 58	94 37	92 12	89 42	87 07	84 26	81 43	78 55	2 00	78 55	
2 10	102 43	100 50	98 53	96 51	94 44	92 33	90 18	87 58	85 33	83 05	80 33	77 58	2 10	77 58	
2 20	100 14	98 27	96 35	94 40	92 41	90 38	88 31	86 19	84 04	81 46	79 25	77 01	2 20	77 01	
2 30	97 55	96 12	94 27	92 38	90 45	88 49	86 49	84 46	82 40	80 30	78 18	76 03	2 30	76 03	
2 40	95 45	94 08	92 27	90 43	88 55	87 05	85 12	83 16	81 18	79 16	77 12	7			

AZIMUTH OR TRUE BEARING.

LATITUDE 47°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 47°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		0	0	0	0	0	0	0	0	0	0	0	0		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	58 28	38 59	27 59	21 21	17 03	14 02	11 51	10 09	8 50	7 47	6 53	6 10		10
	20	71 40	57 16	46 00	37 30	31 07	26 17	22 32	19 33	17 08	15 09	13 30	12 07		20
	30	76 05	65 31	56 06	48 06	41 27	35 57	31 25	27 41	24 31	21 52	19 37	17 40		30
	40	77 55	69 41	61 57	54 55	48 40	43 14	38 29	34 23	30 50	27 45	25 04	22 43		40
	50	78 39	71 57	65 29	59 22	53 43	48 34	43 56	39 46	36 04	32 46	29 50	27 12		50
1	00	78 51	73 13	67 40	62 19	57 15	52 30	48 05	44 03	40 21	36 58	33 55	31 08	1	00
	10	78 44	73 51	69 02	64 18	59 44	55 24	51 16	47 25	43 48	40 26	37 21	34 30		10
	20	78 25	74 07	69 50	65 38	61 30	57 31	53 40	50 02	46 33	43 18	40 14	37 22		20
	30	77 57	74 07	70 17	66 29	62 43	59 04	55 29	52 03	48 47	45 37	42 37	39 48		30
	40	77 23	73 55	70 28	67 00	63 34	60 11	56 52	53 39	50 31	47 29	44 36	41 50		40
	50	76 46	73 37	70 27	67 16	64 06	60 58	57 52	54 50	51 53	48 59	46 12	43 31		50
2	00	76 04	73 10	70 16	67 20	64 24	61 29	58 36	55 44	52 56	50 11	47 31	44 55	2	00
	10	75 20	72 39	69 58	67 14	64 31	61 48	59 04	56 22	53 44	51 06	48 32	46 03</		

AZIMUTH OR TRUE BEARING.

LATITUDE 47°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 47°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.
h. m.	h. m.	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	h. m.
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
0 10	5 31	5 00	4 31	4 06	3 45	3 25	3 07	2 51	2 37	2 23	2 11	2 00	0 10
0 20	10 54	9 51	8 57	8 08	7 25	6 46	6 11	5 40	5 11	4 45	4 21	4 00	0 20
0 30	15 58	14 28	13 10	12 01	10 58	10 02	9 12	8 25	7 43	7 05	6 29	5 50	0 30
0 40	20 38	18 48	17 09	15 42	14 22	13 10	12 05	11 05	10 11	9 20	8 34	7 50	0 40
0 50	24 51	22 45	20 51	19 06	17 33	16 08	14 50	13 37	12 32	11 31	10 34	9 50	0 50
1 00	28 35	26 18	24 12	22 16	20 30	18 54	17 25	16 02	14 47	13 36	12 30	11 40	1 00
1 10	31 52	29 26	27 12	25 08	23 13	21 27	19 49	18 18	16 54	15 35	14 21	13 21	1 10
1 20	34 42	32 12	29 53	27 42	25 42	23 49	22 03	20 24	18 52	17 25	16 05	15 05	1 20
1 30	37 07	34 37	32 14	30 00	27 54	25 56	24 05	22 21	20 42	19 10	17 43	16 43	1 30
1 40	39 11	36 40	34 18	32 01	29 53	27 52	25 56	24 08	22 24	20 46	19 14	17 47	1 40
1 50	40 55	38 27	36 04	33 48	31 38	29 35	27 37	25 44	23 57	22 16	20 39	19 11	1 50
2 00	42 23	39 57	37 36	35 20	33 11	31 05	29 06	27 12	25 22	23 37	21 57	20 30	2 00
2 10	43 35	41 12	38 54	36 40	34 31	32 26	30 25	28 30	26 39	24 51	23 08	21 41	2 10
2 20	44 34	42 16	40 00	37 48	35 40	33 36	31 35	29 39	27 47	25 58	24 14	22 47	2 20
2 30	45 22	43 07	40 55	3									

AZIMUTH OR TRUE BEARING.

LATITUDE 48°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 48°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h. m.		° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	h. m.	
0 00		180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0 00	
0 10		174 24	174 12	174 01	173 48	173 34	173 19	173 01	172 42	172 20	171 56	171 28	170 57	0 10	
0 20		168 51	168 30	168 07	167 41	167 14	166 43	166 10	165 33	164 52	164 06	163 13	162 13	0 20	
0 30		163 27	162 55	162 22	161 45	161 05	160 22	159 35	158 42	157 44	156 39	155 26	154 03	0 30	
0 40		158 11	157 32	156 49	156 03	155 13	154 18	153 19	152 13	151 02	149 42	148 14	146 36	0 40	
0 50		153 09	152 22	151 32	150 37	149 40	148 36	147 28	146 12	144 51	143 22	141 43	139 53	0 50	
1 00		148 22	147 29	146 32	145 31	144 27	143 17	142 01	140 40	139 11	137 35	135 51	133 56	1 00	
1 10		143 48	142 51	141 50	140 43	139 34	138 20	137 00	135 34	134 02	132 22	130 34	128 37	1 10	
1 20		139 30	138 29	137 25	136 15	135 03	133 45	132 22	130 54	129 19	127 39	125 50	123 54	1 20	
1 30		135 27	134 23	133 16	132 05	130 51	129 31	128 07	126 38	125 03	123 23	121 35	119 41	1 30	
1 40		131 38	130 32	129 24	128 12	126 57	125 36	124 11	122 43	121 09	119 29	117 44	115 52	1 40	
1 50		128 02	126 56	125 47	124 35	123 19	121 59	120 34	119 06	117 35	115 57	114 14	112 26	1 50	
2 00		124 39	123 33	122 23	121 11	119 55	118 37	117 14	115 46	114 16	112 42	111 01	109 17	2 00	
2 10		121 28	120 22	119 13	118 00	116									

AZIMUTH OR TRUE BEARING.

LATITUDE 48°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 48°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
		00	00	00	00	00	00	00	00	00	00	00	00		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
0	10	170 21	169 37	168 46	167 43	166 27	164 99	162 41	159 47	155 37	149 15	138 38	119 42	1	00
0	20	161 04	159 44	158 10	156 18	154 01	151 14	147 42	143 10	137 12	129 15	118 32	104 38	1	10
0	30	152 30	150 42	148 37	146 12	143 20	139 56	135 49	130 50	124 46	117 24	108 35	98 23	1	20
0	40	144 45	142 40	140 17	137 34	134 27	130 52	126 41	121 51	116 16	109 51	102 38	94 43	1	30
0	50	137 52	135 38	132 08	128 19	123 09	117 37	110 37	102 08	92 11	80 36	68 34	56 06	1	40
1	00	131 50	129 33	127 00	124 12	121 07	117 45	114 01	109 56	105 28	100 40	95 30	90 03	1	50
1	10	126 30	124 13	121 44	119 01	116 05	112 55	109 28	105 45	101 45	97 31	93 01	88 20	2	00
1	20	121 49	119 35	117 10	114 35	111 49	108 50	105 39	102 16	98 40	94 53	90 55	86 47	2	10
1	30	117 39	115 29	113 11	110 43	108 06	105 20	102 23	99 17	96 01	92 36	89 03	85 22	2	20
1	40	113 54	111 50	109 37	107 18	104 50	102 16	99 33	96 41	93 42	90 36	87 22	84 03	2	30
1	50														

AZIMUTH OR TRUE BEARING.

LATITUDE 48°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 48°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.			
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.		
		0	0	0	0	0	0	0	0	0	0	0	0				
0	00	.....	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	89 04	57 58	38 24	27 29	20 56	16 41	13 44	11 34	9 55	8 37	7 34	6 42	1	10		
	20	88 08	71 21	56 45	45 23	36 54	30 33	25 45	22 02	19 05	16 43	14 47	13 09		20		
	30	87 13	75 49	65 04	55 33	47 29	40 48	35 20	30 49	27 05	23 58	21 21	19 06		30		
	40	86 17	77 42	69 18	61 28	54 21	48 03	42 33	37 49	33 43	30 11	27 07	24 27		40		
	50	85 21	78 28	71 37	65 02	58 50	53 07	47 55	43 15	39 05	35 22	32 05	29 09		50		
1	00	84 25	78 39	72 54	67 15	61 49	56 41	51 52	47 25	43 21	39 37	36 15	33 11	1	00		
	10	83 28	78 32	73 34	68 38	63 50	59 12	54 47	50 37	46 42	43 05	39 43	36 36		10		
	20	82 32	78 13	73 50	69 29	65 11	61 00	56 56	53 03	49 20	45 51	42 33	39 29		20		
	30	81 35	77 45	73 50	69 57	66 04	62 15	58 31	54 53	51 24	48 04	44 53	41 52		30		
	40	80 39	77 10	73 39	70 08	66 36	63 06	59 39	56 16	53 00	49 50	46 40	43 50		40		
	50	79 42	76 32	73 21	70 07	66 52	63 39	60 27	57 18	54 13	51 12	48 17	45 27				

AZIMUTH OR TRUE BEARING.

LATITUDE 48°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 48°.			
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0 /		0 /		0 /		0 /		0 /		0 /		h.	m.
		0	00	0	00	0	00	0	00	0	00	0	00		
0	00	0	00	0	00	0	00	0	00	0	00	0	00	0	00
0	10	5	59	5	22	4	50	3	58	3	17	2	44	2	16
0	20	11	46	10	34	9	33	8	40	7	51	6	32	5	57
0	30	17	13	15	31	14	03	12	45	11	37	10	35	8	05
0	40	22	08	20	04	18	15	16	37	15	11	13	53	12	42
0	50	26	33	24	12	22	06	20	13	18	31	16	58	15	33
1	00	30	24	27	53	25	35	23	29	21	36	19	51	18	15
1	10	33	45	31	07	28	41	26	26	24	23	22	29	20	44
1	20	36	35	33	55	31	24	29	05	26	55	24	55	23	02
1	30	39	00	36	20	33	48	31	25	29	11	27	05	26	07
1	40	41	03	38	23	35	51	33	27	31	11	29	02	27	00
1	50	42	44	40	07	37	37	35	13	32	56	30	46	28	42
2	00	44	08	41	35	39	07	36	45	34	28	32	17	30	12
2	10	45	17	42	48	40	23	38	03	35	47	33	37	31	31
2	20	46	12	43	47	41	26	39	09	36</					

AZIMUTH OR TRUE BEARING.

LATITUDE 49°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 49°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
	10	174 36	174 26	174 15	174 04	173 51	173 37	173 22	173 05	172 47	172 25	172 02	171 34		10
	20	169 16	168 57	168 36	168 13	167 48	167 21	166 51	166 18	165 42	165 02	164 16	163 25		20
	30	164 02	163 33	163 03	162 30	161 54	161 15	160 33	159 45	158 54	157 57	156 53	155 41		30
	40	158 57	158 21	157 41	157 00	156 14	155 25	154 31	153 32	152 29	151 18	149 59	148 32		40
	50	154 03	153 20	152 33	151 44	150 51	149 53	148 51	147 42	146 29	145 09	143 40	142 03		50
1	00	149 21	148 33	147 40	146 45	145 45	144 42	143 32	142 17	140 58	139 30	137 54	136 11	1	00
	10	144 53	144 00	143 03	142 03	140 58	139 49	138 36	137 16	135 52	134 20	132 41	130 54		10
	20	140 39	139 43	138 42	137 37	136 30	135 15	134 01	132 38	131 12	129 37	127 57	126 08		20
	30	136 37	135 38	134 35	133 29	132 19	131 04	129 46	128 22	126 53	125 20	123 39			

AZIMUTH OR TRUE BEARING.

LATITUDE 49°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 49°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.			
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.		
		00	00	00	00	00	00	00	00	00	00	00	00				
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00		
0	10	171 04	170 28	169 45	168 55	167 54	166 39	165 02	162 57	160 06	155 59	149 42	139 09	0	10		
0	20	162 26	161 19	159 59	158 26	156 36	154 22	151 35	148 06	143 37	137 42	129 44	119 00	0	20		
0	30	154 20	152 48	151 01	148 58	146 35	143 44	140 21	136 17	131 19	125 14	117 49	108 55	0	30		
0	40	146 56	145 05	143 01	140 40	137 59	134 53	131 17	127 11	122 17	116 39	110 12	102 53	0	40		
0	50	140 14	138 14	136 01	133 31	130 44	127 34	124 01	120 00	115 30	110 26	104 52	98 45	0	50		
1	00	134 17	132 11	129 54	127 22	124 36	121 31	118 07	114 22	110 14	105 44	100 51	95 37	1	00		
1	10	128 58	126 51	124 34	122 04	119 22	116 25	113 13	109 45	106 00	101 57	97 39	93 05	1	10		
1	20	124 14	122 08	119 54	117 29	114 54	112 07	109 00	105 54	102 28	98 50	95 00	90 57	1	20		
1	30																

AZIMUTH OR TRUE BEARING.

LATITUDE 49°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 49°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.			
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.		
		00	00	00	00	00	00	00	00	00	00	00	00				
0	00	180 00	.....	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	120 10	89 03	57 26	37 49	26 58	20 31	16 19	13 24	11 16	9 40	8 24	7 21	1	10		
	20	104 55	88 07	71 00	56 12	44 46	36 16	29 57	25 13	21 32	18 39	16 18	14 22		20		
	30	98 33	87 10	75 34	64 38	54 58	46 51	40 09	34 40	30 11	26 29	23 24	20 45		30		
	40	94 48	86 13	77 28	68 56	60 57	53 44	47 23	41 52	37 07	33 03	29 32	26 29		40		
	50	92 10	85 16	78 14	71 17	64 34	58 17	52 29	47 15	42 33	38 22	34 39	31 22		50		
1	00	90 05	84 20	78 28	72 35	66 50	61 18	56 05	51 13	46 44	42 37	38 53	35 30	1	00		
	10	88 18	83 22	78 21	73 16	68 16	63 21	58 39	54 10	49 50	45 59	42 20	38 56		10		
	20	86 45	82 25	78 01	73 33	69 07	64 45	60 27	56 20	52 23	48						

AZIMUTH OR TRUE BEARING.

LATITUDE 49°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 49°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.	
h.	m.	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	6 31	5 48	5 12	4 40	4 13	3 49	3 28	3 10	2 52	2 37	2 23		10
	20	12 46	11 24	10 17	9 15	8 22	7 35	6 53	6 16	5 42	5 13	4 45		20
	30	18 35	16 42	15 02	13 36	12 20	11 14	10 12	9 18	8 28	7 44	7 04		30
	40	23 50	21 32	19 29	17 42	16 05	14 40	13 23	12 13	11 09	10 12	9 19		40
	50	28 27	25 51	23 32	21 27	19 35	17 54	16 22	14 59	13 42	12 33	11 29		50
1	00	32 26	29 40	27 08	24 52	22 47	20 53	19 09	17 35	16 07	14 48	13 33	1	00
	10	35 50	32 57	30 19	27 54	25 41	23 38	21 45	20 00	18 24	16 54	15 31		10
	20	38 42	35 48	33 06	30 36	28 16	26 06	24 06	22 14	20 30	18 53	17 22		20
	30	41 05	38 13	35 30	32 58	30 34	28 20	26 14	24 17	22 26	20 43	19 06		30
	40	43 03	40 14	37 33	35 00	32 35	30 19	28 10	26 08	24 13	22 25	2		

AZIMUTH OR TRUE BEARING.

LATITUDE 50°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 50°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.
		00	00	00	00	00	00	00	00	00	00	00	00		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
0	10	174 48	174 38	174 28	174 18	174 07	173 55	173 41	173 26	173 09	172 51	172 30	172 07	0	10
0	20	169 38	169 20	169 02	168 42	168 19	167 55	167 28	166 59	166 26	165 50	165 12	164 27	0	20
0	30	164 35	164 09	163 41	163 11	162 39	162 03	161 25	160 44	159 58	159 07	158 11	157 08	0	30
0	40	159 39	159 06	158 30	157 52	157 10	156 26	155 38	154 45	153 47	152 44	151			

AZIMUTH OR TRUE BEARING.

LATITUDE 50°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 50°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.
		0	0	0	0	0	0	0	0	0	0	0	0		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
	10	171 40	171 10	170 35	169 54	169 05	168 04	166 50	165 16	163 13	160 25	156 22	150 09		10
	20	163 36	162 38	161 31	160 14	158 43	156 54	154 42	151 58	148 31	144 05	138 12	130 16		20
	30	155 57	154 37	153 06	151 21	149 20	146 58	144 10	1						

AZIMUTH OR TRUE BEARING.

LATITUDE 50°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 50°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.
		0	0	0	0	0	0	0	0	0	0	0	0		
0	00	180 00	180 00	...	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	139 42	120 40	89 02	56 53	37 14	26 27	20 04	15 57	13 05	11 00	9 24	8 10		10
	20	119 28	115 12	88 05	70 37	55 38	44 08	35 38	29 22	24 40	21 02	18 10	15 52		20
	30	109 16	98 44	87 07	75 17	64 09	54 23	46 11	39 28	34 00	29 33	25 51	22 49</		

AZIMUTH OR TRUE BEARING.

LATITUDE 50°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 50°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	°	'	°	'	°	'	°	'	°	'	°	h.	m.	
		0	00	0	00	0	00	0	00	0	00	0			
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	7 08	6 19	5 38	5 01	4 31	4 04	3 41	3 20	3 02	2 44	2 30		10	
	20	13 59	12 24	11 04	9 55	8 55	8 03	7 18	6 37	6 01	5 28	4 58		20	
	30	20 15	18 04	16 11	14 34	13 09	11 54	10 48	9 49	8 56	8 07	7 23		30	
	40	25 49	23 11	20 55	18 54	17 07	15 33	14 08	1						

AZIMUTH OR TRUE BEARING.

LATITUDE 51°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 51°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.			
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00		
	10	174 59	174 51	174 41	174 32	174 21	174 11	173 58	173 45	173 31	173 14	172 56	172 36		10		
	20	170 00	169 43	169 26	169 07	168 48	168 25	168 02	167 35	167 07	166 35	166 00	165 22		20		
	30	165 06	164 42	16													

AZIMUTH OR TRUE BEARING.

LATITUDE 51°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 51°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.													h.	m.
		° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
	10	172 13	171 48	171 17	170 43	170 02	169 14	168 15							

AZIMUTH OR TRUE BEARING.

LATITUDE 51°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 51°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.													h.	m.
		0	1	2	3	4	5	6	7	8	9	10	11		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
	10	150 37													

AZIMUTH OR TRUE BEARING.

LATITUDE 51°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 51°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.	
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00			
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
0	10	7 55	6 56</												

AZIMUTH OR TRUE BEARING.

LATITUDE 52°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 52°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	° /	h.	m.
		0	0	0	0	0	0	0	0	0	0	0	0		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
	10	175 0													

AZIMUTH OR TRUE BEARING.

LATITUDE 52°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 52°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.	
h.	m.	0 /												

AZIMUTH OR TRUE BEARING.

LATITUDE 53°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 53°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.			
h.	m.																

AZIMUTH OR TRUE BEARING.

LATITUDE 53°.				DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 53°.			
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.					

AZIMUTH OR TRUE BEARING.

LATITUDE 53°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 53°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54							

AZIMUTH OR TRUE BEARING.

